

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-36-35-1

EXPIRATION DATE: 08/31/2006

SECTION: 24 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:

100,000 GALLON CONE ROOF PETROLEUM STORAGE TANK #2501 WITH VAPOR CONTROL SYSTEM PART OF S-36-18

PERMIT UNIT REQUIREMENTS

1. True vapor pressure of any organic liquid introduced to the tank shall not exceed 1.5 psia at liquid temperature. [District Rule 4623, 2.0 and 2010] Federally Enforceable Through Title V Permit
2. The operator shall determine the true vapor pressure of the petroleum liquid stored in the tank at least once per year in accordance with methods described in 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 12/17/92). Determinations shall be made annually during the summer, and whenever petroleum from a new source or of a new type is placed into the tank. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 12/17/92). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. As used in this permit, the term "type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of API gravity of petroleum liquids stored in this unit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
5. Vapor control system for odor and visible emission control only. [District Rules 2010, 4102] Federally Enforceable Through Title V Permit
6. Vapor control system is shared with PTO's S-36-18 through '25, '29 through '31, '34, '35, and '47. [District Rule 2010] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-36-37-12

EXPIRATION DATE: 08/31/2006

SECTION: 24 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:

LUBE OIL FINISHING PLANT WITH 16.5 MMBTU/HR NATURAL GAS-FIRED NATURAL DRAFT EXTRACT HEATER LH-1, 12.6 MMBTU/HR NATURAL GAS-FIRED FORCED DRAFT HOT OIL HEATER LH-2 WITH FGR, 12.0 MMBTU/HR NATURAL GAS-FIRED FORCED DRAFT HOT OIL HEATER LH-3 WITH LOW NOX BURNERS AND FGR, ABSORBER T-1, TREATING TOWER T-2, EXTRACT DRYER T-5/T-6, MP FLASH DRUM D-5, EXPANSION DRUM D-9, BLOWDOWN DRUM D-7, AND SETTLER D-1

PERMIT UNIT REQUIREMENTS

1. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup and shutdown. [District Rule 4305] Federally Enforceable Through Title V Permit
2. The duration of each startup and shutdown period for the 16.5 MMBtu/hr heater LH-1 shall not exceed 6.5 hours and 2.0 hours respectively. Emission limits of Rule 4305 are waived during periods of startup and shutdown. [District Rule 4305, Section 5.5.6] Federally Enforceable Through Title V Permit
3. The duration of each startup and shutdown period for the 12.6 MMBtu/hr heater LH-2 shall not exceed 6.5 hours and 2.0 hours respectively. Emission limits of Rule 4305 are waived during periods of startup and shutdown. [District Rule 4305, Section 5.5.6] Federally Enforceable Through Title V Permit
4. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102] Federally Enforceable Through Title V Permit
5. Permittee shall maintain, with the permit, accurate fugitive component counts and resulting emissions calculated using API publication 4322, Table E-3 and U.S. E.P.A. publication 450/3-83-007, Table 4-1. [District Rules 4451 and 4452] Federally Enforceable Through Title V Permit
6. Heaters shall be fired exclusively on PUC quality natural gas. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Absorber A-1 overhead condensibles shall be transported in a closed system to a closed oil/water separation operation to prevent emissions to the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Solvent dry tanks shall be closed and equipped with operational conservation pressure relief valves or connected to an approved vapor control system. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Nash vacuum pump system vapors and Absorber A-1 overhead vapors shall be vented exclusively to activated carbon canister vapor control system. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Carbon canister vapor collection system serving Absorber A-1 and Nash vacuum system shall be maintained with a minimum of two (2) carbon canisters connected in series, except during change-out of spent canister(s). [District NSR Rule] Federally Enforceable Through Title V Permit
11. Permittee shall monitor daily for VOC concentration of gas between the carbon canisters and at the discharge of the final carbon canister. [District NSR Rule] Federally Enforceable Through Title V Permit
12. VOC concentration at exhaust outlet for carbon canister system shall not exceed 134 ppmv. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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13. Vapor flow rate to carbon canister system shall not exceed 480 Scf per day. [District NSR Rule] Federally Enforceable Through Title V Permit
14. Carbon canisters shall be replaced whenever effluent gas VOC concentration exceeds 134 ppmv at outlet. [District NSR Rule] Federally Enforceable Through Title V Permit
15. Carbon canister vapor control system shall be maintained leak-free (less than 10,000 ppmv @ 1 cm from source) [District NSR Rule] Federally Enforceable Through Title V Permit
16. Nash vacuum system vapors and Absorber A-1 overhead vapors shall be monitored continuously for H₂S at the carbon canister system exhaust point, with alarm set at 1 ppmv - H₂S. [District NSR Rule] Federally Enforceable Through Title V Permit
17. H₂S emissions from first stage and second stage carbon canisters shall be tested daily, and shall be replaced as required to ensure exhaust to atmosphere does not exceed 1 ppmv-H₂S. [District NSR Rule] Federally Enforceable Through Title V Permit
18. Carbon canisters shall be serviced in a manner preventing the release of VOCs into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
19. Combined VOC emission rate from combustion equipment and fugitive sources shall not exceed 6.5 lb per day. [District NSR Rule] Federally Enforceable Through Title V Permit
20. Permittee shall comply with all applicable requirements of Rules 4453 and 4454. [District Rules 4453 and 4454] Federally Enforceable Through Title V Permit
21. No vessels, lines, or pressure relief valves shall be designed to vent to atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
22. Upon shutdown, vessels containing VOC's shall be controlled per Rule 4454. [District Rule 4454] Federally Enforceable Through Title V Permit
23. Spent, used or contaminated solvent shall not be stored in tanks or containers not connected to an approved vapor control system nor disposed of by introduction into the oily water sewer system. [District NSR Rule and Rule 4102] Federally Enforceable Through Title V Permit
24. Valves and connectors subject to the provisions of Rule 4451 shall not leak in excess of 10,000 ppmv above background when measured one (1) cm from potential source. [District Rule 4451] Federally Enforceable Through Title V Permit
25. Seals on pumps and compressors subject to the provisions of Rule 4452 shall not leak in excess of 10,000 ppmv above background when measured one cm from shaft seal. [District Rule 4452] Federally Enforceable Through Title V Permit
26. Permittee shall comply with all applicable inspection, maintenance, and recordkeeping requirements of Rules 4451 and 4452. [District Rules 4451 and 4452] Federally Enforceable Through Title V Permit
27. Emissions from 16.5 MMBtu/hr heater LH-1 shall not exceed any of the following: NO_x (as NO₂) - 30 ppmv @ 3% O₂ or 0.036 lb/MMBtu; or CO - 400 ppmv @ 3% O₂. [District Rules 4305 and 4351] Federally Enforceable Through Title V Permit
28. Emissions from 12.6 MMBtu/hr heater LH-2 shall not exceed any of the following: NO_x (as NO₂) - 30 ppmv @ 3% O₂ or 0.036 lb/MMBtu; or CO - 400 ppmv @ 3% O₂. [District Rules 2520, 9.4.2, 4305 and 4351] Federally Enforceable Through Title V Permit
29. Emissions from 12.0 MMBtu/hr heater LH-3 shall not exceed any of the following: PM₁₀: 0.004 lb/MMBtu; VOC: 0.01 lb/MMBtu; NO_x (as NO₂) - 30 ppmv @ 3% O₂ or 0.036 lb/MMBtu; or CO - 400 ppmv @ 3% O₂. [District Rules 4305, 4351] Federally Enforceable Through Title V Permit
30. Source testing for NO_x and CO emissions shall be conducted within 60 days of startup, and not less than once every 12 months, except as provided below. [District Rules 4305 and 4351] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

31. Source testing for NOx and CO emissions shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. [District Rules 4305 and 4351] Federally Enforceable Through Title V Permit
32. If permittee fails any source test for NOx and CO emissions when testing not less than once every 36 months, compliance with NOx and CO emission limits shall be demonstrated not less than once every 12 months. [District Rules 4305 and 4351] Federally Enforceable Through Title V Permit
33. Source test results from an individual unit that is identical to this unit, in terms of rated capacity, operational conditions, fuel used, and control method, as approved by the APCO, will satisfy the NOx and CO source testing requirement. [District Rules 2520, 9.4.2, 4305 and 4351] Federally Enforceable Through Title V Permit
34. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit
35. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
36. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
37. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, and stack gas oxygen - EPA Method 3 or 3A or ARB Method 100. [District Rules 1081, 4305, and 4351] Federally Enforceable Through Title V Permit
38. Records of VOC measurements taken between the carbon canisters and at the discharge of the last carbon canister shall be maintained for a period of at least two (2) years, and made readily available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
39. Permittee shall operate heater LH-1 as intended by manufacturer to maintain compliance with NOx and CO emissions limits. [District Rules 4305 and 4351] Federally Enforceable Through Title V Permit
40. The stack concentration of NOx (as NO2), CO, and O2 of heaters LH-1, LH-2, and LH-3 shall be measured at least on a monthly basis using District approved portable analyzers. In-stack O2 monitors are acceptable for O2 measurement. [District Rules 4305 and 4351] Federally Enforceable Through Title V Permit
41. If the NOx or CO concentrations of heaters LH-1, LH-2, and LH-3, as measured by the portable analyzer, exceed the allowable emissions rate, the permittee shall notify the District and return the NOx and CO concentrations to the allowable emissions rate as soon as possible but no longer than one (1) hour after detection. If the portable analyzer readings continue to exceed the allowable emissions rate after one hour, the permittee shall conduct an emissions test within 60 days, utilizing District approved test methods, to determine compliance with the applicable emission limits. [District Rules 4305 and 4351] Federally Enforceable Through Title V Permit
42. The permittee shall maintain records of the date and time of NOx, CO, and O2 measurements on heaters LH-1, LH-2, and LH-3, the measured NO2 and CO concentrations corrected to 3% O2, and the O2 concentration. The records must also include a description of any corrective action taken to maintain the emissions within an acceptable range. These records shall be retained at the facility for a period of no less than five years and shall be made available for District inspection upon request. [District Rules 4305 and 4351] Federally Enforceable Through Title V Permit
43. Permittee shall maintain records of fuel hhv and cumulative annual fuel use for a period of five years and shall make such records readily available for District inspection upon request. [District Rule 4351] Federally Enforceable Through Title V Permit
44. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 19, 1993). [District Rule 1081, and Kern County Rule 108.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

45. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
46. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit
47. Particulate matter emissions shall not exceed 0.1 grain/dscf, 0.1 grain/dscf calculated to 12% CO₂, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
48. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO₂. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rule 2520, 9.4.2 and District Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit
49. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
50. When complying with SO_x emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
51. If the unit is fired on noncertified gaseous fuel and compliance with SO_x emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
52. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by: ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit
53. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period [Kern County Rule 407]. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas; or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels; or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
54. Nitrogen oxide (NO_x) emission concentrations in ppmv shall be referenced at dry stack gas conditions, and shall be calculated to 3.00 percent by volume stack gas oxygen and averaged over 60 minutes, and lb/MMBtu rates shall be calculated as lb NO₂/MMBtu of heat input (hhv). [District Rules 2520, 9.4.2, 4305, 5.0, 8.2 and/or 4351, 8.1] Federally Enforceable Through Title V Permit
55. Combined VOC emission rate from combustion equipment and fugitive sources shall not exceed 3.5 lb per day. [District NSR Rule] Federally Enforceable Through Title V Permit
56. No vessels, lines, or pressure relief valves shall be designed to vent to atmosphere except during breakdown conditions. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

57. The portable analyzer shall be calibrated daily when in use with a two-point calibration method (zero and span). Calibration shall be performed with certified gases. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
58. Emissions for the LH-1, LH-2, and LH-3 shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty-minute test runs for NO_x and CO. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
59. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NO_x emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NO_x emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 2520, 9.4.2, 4305, 6.3.2, and 4351, 6.3] Federally Enforceable Through Title V Permit
60. The following conditions must be met for representative unit(s) to be used to test for NO_x limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.4.2, and 4305, 6.3.2] Federally Enforceable Through Title V Permit
61. All units in a group for which representative units are source for NO_x emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). These tune-up procedures shall be completed according to District Rule 4304 (Adopted October 19, 1995) and tune-up test results shall show comparable results for each unit in the group. Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rules 2520, 9.4.2, and 4305, 6.3.2] Federally Enforceable Through Title V Permit
62. All units in a group for which representative units are source tested for NO_x emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.4.2, and 4305, 6.3.2] Federally Enforceable Through Title V Permit
63. The number of representative units source tested for NO_x emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
64. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
65. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of SJVUAPCD Rule 4801, section 3.1 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
66. Nitrogen oxide (NO_x) emissions for each heater shall not exceed 140 lb/hr, calculated as NO₂. [District Rules 4301, 5.2.2 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-36-38-2

EXPIRATION DATE: 08/31/2006

SECTION: 24 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:

29,400 GALLON FIXED ROOF SOLVENT STORAGE TANK NORTH #702

PERMIT UNIT REQUIREMENTS

1. True vapor pressure of the volatile organic liquid stored shall be less than 10.3 kPa (1.5 psia) for tanks with a storage capacity greater than or equal to 40 m³ (10,567 gallons) but not exceeding 151 m³ (39,890 gallons). [40 CFR 60.112b(a)] Federally Enforceable Through Title V Permit
2. Operator shall maintain records, kept for the life of the source, showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. [40 CFR 60.116b(a)] Federally Enforceable Through Title V Permit
3. The operator shall notify the APCO within 30 days of any occurrence in which the maximum true vapor pressure of the liquid stored exceeds the true vapor pressure limitations specified in this permit. [40 CFR 60.116b(d)] Federally Enforceable Through Title V Permit
4. Maximum true vapor pressure, for crude oil or refined petroleum products, may be determined from nomographs contained in API Bulletin 2517, by using the typical Reid vapor pressure and the maximum expected storage temperature of the stored product, unless the APCO specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s). [40 CFR 60.116b(e)(2)(i)] Federally Enforceable Through Title V Permit
5. For vessels operated above or below ambient temperatures, the maximum true vapor pressure is calculated based upon the highest expected calendar-month average of the storage temperature. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service. [40 CFR 60.116b(e)(1)] Federally Enforceable Through Title V Permit
6. Operator shall determine the true vapor pressure of each type of crude oil with a Reid vapor pressure less than 2.0 psia or whose physical properties preclude determination by the recommended method from available data and record if the estimated true vapor pressure is greater than 0.5 psia. [40 CFR 60.116b(e)(2)(ii)] Federally Enforceable Through Title V Permit
7. Operator shall determine the true vapor pressure of each VOL, other than crude oil or refined petroleum products, from standard reference texts, by ASTM Method D2879, or by using an appropriate method approved by the EPA. [40 CFR 60.116b(e)] Federally Enforceable Through Title V Permit
8. True vapor pressure of a waste mixture of indeterminate or variable composition shall be determined using ASTM Method D2879, ASTM Method D323, or by an appropriate method approved by the EPA. [40 CFR 60.116b(f)] Federally Enforceable Through Title V Permit
9. Total throughput of tanks S-36-38 and -44 shall not exceed 700 bbl/day. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: SAN JOAQUIN REFINING COMPANY

Location: STANDARD AND SHELL ST, BAKERSFIELD, CA 93308

S-36-38-2: Apr 12 2011 9:10AM -- SIOHGOJ

10. All gauge hatches, manholes, PV vents, etc., shall be equipped with vapor tight seals and breather vents set at no less than 2.0 psi pressure and 0.5 psi vacuum. [District NSR Rule] Federally Enforceable Through Title V Permit
11. VOC emission rate for tanks S-36-38 and -44 shall not exceed 0.38 lbm/day. [District NSR Rule] Federally Enforceable Through Title V Permit
12. The operator shall determine the true vapor pressure of the petroleum liquid stored in the tank at least once per year in accordance with methods described in 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 12/17/92). Determinations shall be made annually during the summer, and whenever petroleum from a new source or of a new type is placed into the tank. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
13. As used in this permit, the term "type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of API gravity of petroleum liquids stored in this unit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
14. Records of daily total throughput of tanks S-36-38 and -44 shall be maintained for a period of five years. [District Rule 2520, 9.4.2, 9.5.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-36-39-1

EXPIRATION DATE: 08/31/2006

SECTION: 24 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:

840,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK #20006 EQUIPPED WITH A GAUGE HATCH SET AT 2.0 PSI PRESSURE AND 0.5 PSI VACUUM

PERMIT UNIT REQUIREMENTS

1. True vapor pressure of the petroleum liquid stored shall be less than 1.5 psia. [40 CFR 60.112a(a)] Federally Enforceable Through Title V Permit
2. If the Reid vapor pressure of the petroleum liquid stored is greater than 1.0 psia, or the maximum true vapor pressure of the petroleum liquid is greater than 1.0 psia, then operator shall maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period. [40 CFR 60.115a(a) and 60.115a(d)(1)] Federally Enforceable Through Title V Permit
3. Maximum true vapor pressure may be determined from nomographs contained in API Bulletin 2517, by using the typical Reid vapor pressure and the maximum expected storage temperature of the stored product, unless the APCO specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s). [40 CFR 60.115a(b)] Federally Enforceable Through Title V Permit
4. Operator shall determine the true vapor pressure of each type of crude oil with a Reid vapor pressure less than 2.0 psia or whose physical properties preclude determination by the recommended method from available data and record if the true vapor pressure is greater than 1.0 psia. [40 CFR 60.115a(c)] Federally Enforceable Through Title V Permit
5. The operator shall determine the true vapor pressure of the petroleum liquid stored in the tank at least once per year in accordance with methods described in 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 12/17/92). Determinations shall be made annually during the summer, and whenever petroleum from a new source or of a new type is placed into the tank. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
6. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 12/17/92). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
7. As used in this permit, the term "type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of API gravity of petroleum liquids stored in this unit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-36-40-1

EXPIRATION DATE: 08/31/2006

SECTION: 24 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:

840,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK #20005 EQUIPPED WITH A GAUGE HATCH SET AT 2.0 PSI PRESSURE AND 0.5 PSI VACUUM

PERMIT UNIT REQUIREMENTS

1. True vapor pressure of the petroleum liquid stored shall be less than 1.5 psia. [40 CFR 60.112a(a)] Federally Enforceable Through Title V Permit
2. If the Reid vapor pressure of the petroleum liquid stored is greater than 1.0 psia, or the maximum true vapor pressure of the petroleum liquid is greater than 1.0 psia, then operator shall maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period. [40 CFR 60.115a(a) and 60.115a(d)(1)] Federally Enforceable Through Title V Permit
3. Maximum true vapor pressure may be determined from nomographs contained in API Bulletin 2517, by using the typical Reid vapor pressure and the maximum expected storage temperature of the stored product, unless the APCO specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s). [40 CFR 60.115a(b)] Federally Enforceable Through Title V Permit
4. Operator shall determine the true vapor pressure of each type of crude oil with a Reid vapor pressure less than 2.0 psia or whose physical properties preclude determination by the recommended method from available data and record if the true vapor pressure is greater than 1.0 psia. [40 CFR 60.115a(c)] Federally Enforceable Through Title V Permit
5. The operator shall determine the true vapor pressure of the petroleum liquid stored in the tank at least once per year in accordance with methods described in 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 12/17/92). Determinations shall be made annually during the summer, and whenever petroleum from a new source or of a new type is placed into the tank. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
6. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 12/17/92). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
7. As used in this permit, the term "type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of API gravity of petroleum liquids stored in this unit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-36-41-17

EXPIRATION DATE: 08/31/2006

SECTION: 23 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:

31.25 MMBTU/HR FORCED DRAFT WICKES BOILER WITH NORTH AMERICAN MODEL 6131-FC2 NATURAL GAS/OIL-FIRED LOW NOX BURNER WITH FGR

PERMIT UNIT REQUIREMENTS

1. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup and shutdown. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
2. The duration of each startup and shutdown period for the 31.25 MMBtu/hr heater shall not exceed 4.0 hours and 2.0 hours respectively. Emission limits of Rule 4305 and 4306 are waived during periods of startup and shutdown. [District Rule 4305, Section 5.5.6 and 4306 Section 5.3] Federally Enforceable Through Title V Permit
3. Gas fired emission rates shall not exceed any of the following: PM10: 0.0076 lb/MMBtu, VOC: 0.0055 lb/MMBtu, or CO: 100 ppmv @ 3% O₂. [District NSR Rule and District Rules 4305, 4306 and 4351] Federally Enforceable Through Title V Permit
4. Gas fired NO_x emissions shall not exceed 30 ppmv @ 3% O₂. [Stipulated Abatement Order S-00-40P] Federally Enforceable Through Title V Permit
5. Liquid fuel fired emission rates shall not exceed any of the following: PM10: 0.0231 lb/MMBtu, NO_x (as NO₂) - 40 ppmv @ 3% O₂ or 0.052 lb/MMBtu, VOC: 0.0024 lb/MMBtu, or CO: 400 ppmv @ 3% O₂. [District NSR Rule and District Rules 4305, 4306 and 4351] Federally Enforceable Through Title V Permit
6. Boiler may be fired on Fruitvale oilfield produced gas, purchased natural gas or liquid fuel. Natural gas and lease produced gas sulfur content shall not exceed 1.0 gr sulfur compounds/100 scf. Liquid fuel sulfur content shall not exceed 10 ppmw. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Total quantity of liquid fuel combusted in S-36-2, S-36-4, and S-36-41 shall not exceed 1,095,500 gal/rolling twelve month period, or such greater quantity as determined by a revised health risk assessment using actual emission factors for polycyclic aromatic hydrocarbons (PAHs) and/or chromium VI compounds determined by liquid fuel fired source test results (lb/1000 gal) for units S-36-2, S-36-4, and/or S-36-41. Source testing for PAHs and/or chromium VI compounds may be performed at the discretion of the permittee within 60 days of initial liquid fuel firing. [District Rule 4102] Federally Enforceable Through Title V Permit
8. Compliance testing to demonstrate compliance with liquid fuel fired NO_x and CO emission limits shall be conducted within 60 days of initial liquid fuel firing. [District Rule 1081] Federally Enforceable Through Title V Permit
9. Source testing for gas fired NO_x and CO emissions shall be conducted not less than once every 12 months, except as provided below. Source testing to demonstrate compliance with liquid fuel fired NO_x and CO emission limits shall be conducted not less than once every 12 months if liquid fuel was used within preceding 12 months, except as provided below. [District Rules 4305, 4306 and 4351] Federally Enforceable Through Title V Permit
10. Source testing for gas and liquid fuel fired NO_x and CO emissions shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. [District Rules 4305, 4306 and 4351] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: SAN JOAQUIN REFINING COMPANY

Location: STANDARD AND SHELL ST, BAKERSFIELD, CA 93308

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11. If permittee fails any source test for NO_x and CO emissions when testing not less than once every 36 months, compliance with NO_x and CO emission limits shall be demonstrated not less than once every 12 months. [District Rules 4305, 4306 and 4351] Federally Enforceable Through Title V Permit
12. Source test results from an individual unit that is identical to this unit, in terms of rated capacity, operational conditions, fuel used, and control method, as approved by the APCO, will satisfy the NO_x and CO source testing requirement. [District Rules 2520, 9.4.2, 4305, 4306 and 4351] Federally Enforceable Through Title V Permit
13. Source testing shall be by District witnessed, or authorized sample collection by ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit
14. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
15. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
16. The stack concentration of NO_x (as NO₂), CO, and O₂ shall be measured at least on a monthly basis using District approved portable analyzers. In-stack O₂ monitors are acceptable for O₂ measurement. [District Rules 4305, 4306 and 4351] Federally Enforceable Through Title V Permit
17. If the NO_x and/or CO concentrations, as measured by the portable analyzer, exceed the allowable emissions rate, the permittee shall notify the District and return the NO_x and CO concentrations to the allowable emissions rate as soon as possible but no longer than one (1) hour after detection. If the portable analyzer readings continue to exceed the allowable emissions rate after one hour, the permittee shall conduct an emissions test within 60 days, utilizing District approved test methods, to determine compliance with the applicable emissions limits. [District Rules 4305, 4306 and 4351] Federally Enforceable Through Title V Permit
18. The permittee shall maintain records of the date and time of NO_x, CO, and O₂ measurements, the measured NO₂ and CO concentrations corrected to 3% O₂, and the O₂ concentration. The records must also include a description of any corrective action taken to maintain the emissions within an acceptable range. These records shall be retained at the facility for a period of no less than five years and shall be made available for District inspection upon request. [District Rules 4305, 4306 and 4351] Federally Enforceable Through Title V Permit
19. The following test methods shall be used: NO_x (ppmv) - EPA Method 7E or ARB Method 100, NO_x (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, fuel gas sulfur content- ASTM D3246, fuel oil sulfur content - ASTM D4294, PAHs - ARB method 429, and chromium VI compounds - CARB method 425. [District Rules 1081, 4305, and 4351] Federally Enforceable Through Title V Permit
20. Permittee shall maintain records of total quantity of liquid fuel combusted in S-36-2, S-36-4, and S-36-41 on a rolling twelve month basis for a period of five years and shall make such records readily available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
21. Permittee shall maintain records of fuel oil and lease produced gas sulfur content, fuels hhv and cumulative annual fuels use for a period of five years and shall make such records readily available for District inspection upon request. [District Rule 2520, 9.5.2 and 4351] Federally Enforceable Through Title V Permit
22. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 19, 1993). [District Rule 1081, and Kern County Rule 108.1] Federally Enforceable Through Title V Permit
23. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
24. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

25. Particulate matter emissions shall not exceed 0.1 grain/dscf, 0.1 grain/dscf calculated to 12% CO₂, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
26. Source testing shall be performed using EPA Method 5 while firing on residual oil (including crude or topped crude) to demonstrate compliance with PM emission limits. Source testing shall be performed within 90 days of firing on residual oil unless such testing has been performed within the 12 month period prior to firing on said oil and the test results showed compliance with PM emission limits of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
27. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO₂. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas or on diesel fuel not exceeding 0.5% sulfur by weight; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rule 2520, 9.4.2 and District Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit
28. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
29. When complying with SO_x emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
30. If the unit is fired on noncertified gaseous fuel and compliance with SO_x emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
31. If the unit is fired on noncertified liquid fuel and compliance with SO_x emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the liquid fuel being fired in the unit shall be determined using ASTM D 2880. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
32. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by: ASTM D 240 or D 2382 for liquid hydrocarbon fuels; ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2.1; 4306, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit
33. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period [County Rules 404 (Madera), 406 (Fresno), and 407 (Kern, Kings, Merced, San Joaquin, Stanislaus, and Tulare)]. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas or diesel fuel not exceeding 0.5% sulfur by weight; or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels or 3.0% by weight for residual oil (including crude or topped crude); or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
34. Nitrogen oxide (NO_x) emission concentrations in ppmv shall be referenced at dry stack gas conditions, and shall be calculated to 3.00 percent by volume stack gas oxygen and averaged over 60 minutes, and lb/MMBtu rates shall be calculated as lb NO₂/MMBtu of heat input (hhv). [District Rule 2520, 9.4.2; 4305, 5.0, 8.2; 4306, 5.0 and/or 4351, 8.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

35. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty-minute test runs for NOx and CO. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
36. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 2520, 9.4.2; 4305, 6.3.2; 4306, 6.3.2 and 4351, 6.3] Federally Enforceable Through Title V Permit
37. The following conditions must be met for representative unit(s) to be used to test for NOx limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.4.2; 4305, 6.3.2 and 4306, 6.3.2] Federally Enforceable Through Title V Permit
38. All units in a group for which representative units are source for NOx emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). These tune-up procedures shall be completed according to District Rule 4304 (Adopted October 19, 1995) and tune-up test results shall show comparable results for each unit in the group. Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rules 2520, 9.4.2; 4305, 6.3.2 and 4306, 6.3.2] Federally Enforceable Through Title V Permit
39. All units in a group for which representative units are source tested for NOx emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.4.2; 4305, 6.3.2 and 4306, 6.3.2] Federally Enforceable Through Title V Permit
40. The number of representative units source tested for NOx emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
41. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), 4301 (Amended December 17, 1992), and 4801, section 3.1 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-36-42-9

EXPIRATION DATE: 08/31/2006

SECTION: 24 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:

CRUDE UNIT AND/OR VISBREAKING UNIT INCLUDING GAS FIRED 12.6 MMBTU/HR HEATER (PERMITTED AS S-36-2), 25 MMBTU/HR NATURAL GAS FIRED VERTICAL ASPHALT HEATER H5 WITH 3 ZEECO CLSF 12 LOW NOX BURNERS, RETENTION VESSEL, AND FIVE HEATER EXCHANGERS

PERMIT UNIT REQUIREMENTS

1. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup and shutdown. [District Rule 4305] Federally Enforceable Through Title V Permit
2. The duration of each startup and shutdown period for the 25.0 MMBtu/hr Visbreaker heater shall not exceed 8.0 hours and 2.0 hours respectively. Short term NOx and CO emissions limits (lb/MM Btu and ppmv @ 3% O2) shall not apply during periods of startup and shutdown. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
3. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 19, 1993). [District Rule 1081, and Kern County Rule 108.1] Federally Enforceable Through Title V Permit
4. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
5. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit
6. Particulate matter emissions for each heater shall not exceed 0.1 grain/dscf, 0.1 grain/dscf calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
7. Emissions of sulfur compounds from each heater shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rule 2520, 9.4.2 and District Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit
8. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

9. When complying with SO_x emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. If the unit is fired on noncertified gaseous fuel and compliance with SO_x emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
11. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by: ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 2520, 9.4.2; 4305, 6.2.1; 4306, 6.2.1 and 4351, 6.2.1] Federally Enforceable Through Title V Permit
12. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period (Kern County Rule 407). To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas not exceeding 0.5% sulfur by weight; or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight; or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
13. Nitrogen oxide (NO_x) emission concentrations in ppmv shall be referenced at dry stack gas conditions, and shall be calculated to 3.00 percent by volume stack gas oxygen and averaged over 60 minutes, and lb/MMBtu rates shall be calculated as lb NO₂/MMBtu of heat input (hhv). [District Rules 2520, 9.4.2, 4305, 5.0, 8.2, 4306, 5.0, 8.2 and 4351, 8.1] Federally Enforceable Through Title V Permit
14. Waste gas from packed column sour water stripper shall be piped to fuel gas scrubber listed on S-36-80. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Waste liquids from fuel oil steam stripping column shall be piped to closed stripped sour water holding tank. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Natural gas combusted in units shall be of PUC quality. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Fuel oil stripped water shall be piped, via closed piping, to sour water stripper only. [District NSR Rule] Federally Enforceable Through Title V Permit
18. Sour water stripper gas outlet shall discharge only into fuel gas scrubber inlet piping listed on S-36-80-0. [District NSR Rule] Federally Enforceable Through Title V Permit
19. Sour water stripper liquid effluent shall discharge only to a closed stripped sour water holding tank via closed piping. [District NSR Rule] Federally Enforceable Through Title V Permit
20. Both heaters shall be equipped with operational recording fuel flowmeters. [District Rule Rule 1070] Federally Enforceable Through Title V Permit
21. Heat exchangers utilizing cooling water shall be operated and maintained in a manner preventing VOC emissions from the cooling tower. [District NSR Rule] Federally Enforceable Through Title V Permit
22. Process unit turn-around shall be operated in accordance with Rule 4454. [District Rule 4454] Federally Enforceable Through Title V Permit
23. Permittee shall comply with all applicable inspection, maintenance, and recordkeeping requirements of Rules 4451 and 4452. [District Rules 4451, 4452] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

24. Emissions from 25 MMBtu/hr Visbreaker heater shall not exceed any of the following: NO_x (as NO₂): 30 ppmv @ 3% O₂, PM₁₀: 0.004 lb/MM Btu, CO: 400 ppmv @ 3% O₂ and VOC: 0.0055 lb/MMBtu. [Stipulated Abatement Order S-00-40P and District Rules 2201, 2520, 9.4.2, 4305, 4306 and 4351] Federally Enforceable Through Title V Permit
25. Source testing to measure NO_x and CO emissions from this unit while fired on natural gas shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
26. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
27. NO_x emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
28. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
29. Stack gas oxygen (O₂) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
30. If permittee fails any compliance demonstration for NO_x and CO emission limits when testing not less than once every 36 months, compliance with NO_x and CO emission limits shall be demonstrated not less than once every 12 months. [District Rules 2201, 2520, 9.4.2, 4305, 4306 and 4351] Federally Enforceable Through Title V Permit
31. Source test results from an individual unit that is identical to this unit, in terms of rated capacity, operational conditions, fuel used, and control method, as approved by the APCO, will satisfy the NO_x and CO source testing requirement. [District Rules 2201, 2520, 9.4.2, 4305, 4306 and 4351] Federally Enforceable Through Title V Permit
32. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit
33. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
34. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
35. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
36. If either the NO_x or CO concentrations corrected to 3% O₂, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

37. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
38. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x and CO concentrations corrected to 3% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
39. Records of fuel consumed in both heaters shall be maintained for a period of five years shall be made available for District inspection upon request. [District Rule 1070 and 2520, 9.5.2] Federally Enforceable Through Title V Permit
40. Permittee shall maintain records of fuel hhv and the cumulative annual fuel combusted (scf and Btu) for a period of five years and shall make such records readily available for District inspection upon request. [District Rule 2201 and 2520, 9.5.2 and 4351] Federally Enforceable Through Title V Permit
41. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty-minute test runs for NO_x and CO. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
42. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NO_x emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NO_x emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 2520, 9.4.2, 4305, 6.3.2, and 4351, 6.3] Federally Enforceable Through Title V Permit
43. The following conditions must be met for representative unit(s) to be used to test for NO_x limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.4.2, and 4305, 6.3.2] Federally Enforceable Through Title V Permit
44. All units in a group for which representative units are source for NO_x emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). These tune-up procedures shall be completed according to District Rule 4304 (Adopted October 19, 1995) and tune-up test results shall show comparable results for each unit in the group. Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rules 2520, 9.4.2, and 4305, 6.3.2] Federally Enforceable Through Title V Permit
45. All units in a group for which representative units are source tested for NO_x emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.4.2, and 4305, 6.3.2] Federally Enforceable Through Title V Permit
46. The number of representative units source tested for NO_x emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
47. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

48. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of District Rule 4801, section 3.1 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
49. Nitrogen oxide (NO_x) emissions shall not exceed 140 lb/hr, calculated as NO₂. [District Rules 4301, 5.2.2 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
50. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, and 4306] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-36-43-2

EXPIRATION DATE: 08/31/2006

SECTION: 24 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:

ABA PLANT WITH ASPHALT BLOWING STILL (NORTH), 200 HP BLOWER, CONDENSIBLES KNOCKOUT VESSEL, SMITH THERMAL OXIDIZER, O2 RECORDING ANALYZER, AND SHARED EQUIPMENT LISTED IN S-36-4

PERMIT UNIT REQUIREMENTS

1. Only one blower (listed in S-36-4 or '43) shall be used to provide air to the still at any one time. [District NSR Rule] Federally Enforceable Through Title V Permit
2. Still shall be vented to Smith thermal oxidizer listed in S-36-43 or John Zink thermal oxidizer listed in S-36-4. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Minimum temperature of 1400 degrees F shall be maintained at thermocouple in afterburner. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Fume retention time in afterburner shall be at least 0.3 seconds. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Afterburner and knockout vessel listed in S-36-4 or S-36-43 shall always be used during asphalt blowing operation. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Still and afterburner shall utilize temperature probes and continuous temperature recorders. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Process rate of North A.B.A. still shall not exceed 2500 bbl/day @ 60°F of feed material. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Emissions from Smith thermal oxidizer shall not exceed any of the following PM10: 1.60 lb/hr, SOx: 0.01 lb/hr (as SO2), NOx: 2.96 lb/hr (as NO2), VOC: 0.33 lb/hr, or CO: 0.22 lb/hr. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Permittee shall comply with all applicable inspection, maintenance, and recordkeeping requirements of Rules 4451 and 4452. [District Rules 2520, 9.4.2, 4451 and 4452] Federally Enforceable Through Title V Permit
10. Permittee shall maintain afterburner temperature recorder charts for a period of five years and make such records readily available for District inspection upon request. [District Rule 1070, and 2520, 9.5.2] Federally Enforceable Through Title V Permit
11. Daily records of the process rate of north A.B.A. still #3 shall be maintained and made available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-36-44-1

EXPIRATION DATE: 08/31/2006

SECTION: 24 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:

29,400 GALLON FIXED ROOF SOLVENT STORAGE TANK SOUTH #701

PERMIT UNIT REQUIREMENTS

1. True vapor pressure of the volatile organic liquid stored shall be less than 10.3 kPa (1.5 psia) for tanks with a storage capacity greater than or equal to 40 m³ (10,567 gallons) but not exceeding 151 m³ (39,890 gallons). [40 CFR 60.112b(a)] Federally Enforceable Through Title V Permit
2. Operator shall maintain records, kept for the life of the source, showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. [40 CFR 60.116b(a)] Federally Enforceable Through Title V Permit
3. If the tank has a design capacity greater than or equal to 151 m³ (39,890 gallons) with a true vapor pressure greater than 3.5 kPa (0.5 psia), operator shall maintain a record of the volatile organic liquid (VOL) stored, the period of storage, and the maximum true vapor pressure of that VOL during that respective storage period. [40 CFR 60.116b(c)] Federally Enforceable Through Title V Permit
4. The operator shall notify the APCO within 30 days of any occurrence in which the maximum true vapor pressure of the liquid stored exceeds the true vapor pressure limitations specified in this permit. [40 CFR 60.116b(d)] Federally Enforceable Through Title V Permit
5. Maximum true vapor pressure, for crude oil or refined petroleum products, may be determined from nomographs contained in API Bulletin 2517, by using the typical Reid vapor pressure and the maximum expected storage temperature of the stored product, unless the APCO specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s). [40 CFR 60.116b(e)(2)(i)] Federally Enforceable Through Title V Permit
6. For vessels operated above or below ambient temperatures, the maximum true vapor pressure is calculated based upon the highest expected calendar-month average of the storage temperature. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service. [40 CFR 60.116b(e)(1)] Federally Enforceable Through Title V Permit
7. Operator shall determine the true vapor pressure of each type of crude oil with a Reid vapor pressure less than 2.0 psia or whose physical properties preclude determination by the recommended method from available data and record if the estimated true vapor pressure is greater than 0.5 psia. [40 CFR 60.116b(e)(2)(ii)] Federally Enforceable Through Title V Permit
8. Operator shall determine the true vapor pressure of each VOL, other than crude oil or refined petroleum products, from standard reference texts, by ASTM Method D2879, or by using an appropriate method approved by the EPA. [40 CFR 60.116b(e)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

9. The operator of a tank with a design capacity greater than 151 m³ (39,890 gallons), storing a waste mixture of indeterminate or variable composition with a true vapor pressure greater than 3.5 kPa (0.5 psia) shall perform a physical test for true vapor pressure at least once every six months. [40 CFR 60.116b(f)] Federally Enforceable Through Title V Permit
10. True vapor pressure of a waste mixture of indeterminate or variable composition shall be determined using ASTM Method D2879, ASTM Method D323, or by an appropriate method approved by the EPA. [40 CFR 60.116b(f)] Federally Enforceable Through Title V Permit
11. Total throughput of tanks S-36-38 and -44 shall not exceed 700 bbl/day. [District NSR Rule] Federally Enforceable Through Title V Permit
12. All gauge hatches, manholes, PV vents, etc., shall be equipped with vapor tight seals and breather vents set at no less than 2.0 psi pressure and 0.5 psi vacuum. [District NSR Rule] Federally Enforceable Through Title V Permit
13. VOC emission rate for tanks S-36-38 and -44 shall not exceed 0.38 lbm/day. [District NSR Rule] Federally Enforceable Through Title V Permit
14. The operator shall determine the true vapor pressure of the petroleum liquid stored in the tank at least once per year in accordance with methods described in 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 12/17/92). Determinations shall be made annually during the summer and whenever there is a change in the source or type of petroleum entering the tank. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
15. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of API gravity of petroleum liquids stored in this unit to determine which oils are from a common source. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
16. Records of daily total throughput of tanks S-36-38 and -44 shall be maintained for a period of five years. [District Rule 2520, 9.4.2, 9.5.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-36-47-1

EXPIRATION DATE: 08/31/2006

SECTION: 24 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:

22,428 GALLON FIXED ROOF PETROLEUM STORAGE TANK #501 WITH VAPOR CONTROL SYSTEM PART OF S-36-18

PERMIT UNIT REQUIREMENTS

1. True vapor pressure of any organic liquid introduced to the tank shall not exceed 1.5 psia at liquid temperature. [District Rule 4623, 2.0 and 2010] Federally Enforceable Through Title V Permit
2. The operator shall determine the true vapor pressure of the petroleum liquid stored in the tank at least once per year in accordance with methods described in 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 12/17/92). Determinations shall be made annually during the summer, and whenever petroleum from a new source or of a new type is placed into the tank. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 12/17/92). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. As used in this permit, the term "type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of API gravity of petroleum liquids stored in this unit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
5. Vapor control system for odor and visible emission control only. [District Rules 2010, 4102] Federally Enforceable Through Title V Permit
6. Vapor control system is shared with PTO's S-36-18 through '25, '29 through '31, '34, '35, and '47. [District Rule 2010] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-36-48-1

EXPIRATION DATE: 08/31/2006

SECTION: 24 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:

44,226 GALLON FIXED ROOF PETROLEUM STORAGE TANK #1006

PERMIT UNIT REQUIREMENTS

1. True vapor pressure of any organic liquid introduced to the tank shall not exceed 1.5 psia at liquid temperature. [District Rule 4623, 2.0 and 2010] Federally Enforceable Through Title V Permit
2. The operator shall determine the true vapor pressure of the petroleum liquid stored in the tank at least once per year in accordance with methods described in 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 12/17/92). Determinations shall be made annually during the summer, and whenever petroleum from a new source or of a new type is placed into the tank. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 12/17/92). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. As used in this permit, the term "type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of API gravity of petroleum liquids stored in this unit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-36-49-1

EXPIRATION DATE: 08/31/2006

SECTION: 24 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:

44,142 GALLON FIXED ROOF PETROLEUM STORAGE TANK #1020

PERMIT UNIT REQUIREMENTS

1. True vapor pressure of any organic liquid introduced to the tank shall not exceed 1.5 psia at liquid temperature. [District Rule 4623, 2.0 and 2010] Federally Enforceable Through Title V Permit
2. The operator shall determine the true vapor pressure of the petroleum liquid stored in the tank at least once per year in accordance with methods described in 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 12/17/92). Determinations shall be made annually during the summer, and whenever petroleum from a new source or of a new type is placed into the tank. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 12/17/92). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. As used in this permit, the term "type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of API gravity of petroleum liquids stored in this unit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-36-50-1

EXPIRATION DATE: 08/31/2006

SECTION: 24 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:

576,702 GALLON FIXED ROOF PETROLEUM STORAGE TANK #13001

PERMIT UNIT REQUIREMENTS

1. True vapor pressure of any organic liquid introduced to the tank shall not exceed 1.5 psia at liquid temperature. [District Rule 4623, 2.0 and 2010] Federally Enforceable Through Title V Permit
2. The operator shall determine the true vapor pressure of the petroleum liquid stored in the tank at least once per year in accordance with methods described in 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 12/17/92). Determinations shall be made annually during the summer, and whenever petroleum from a new source or of a new type is placed into the tank. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 12/17/92). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. As used in this permit, the term "type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of API gravity of petroleum liquids stored in this unit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-36-51-18

EXPIRATION DATE: 08/31/2006

SECTION: 23 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:

103.4 MMBTU/HR DIESEL TREATING UNIT WITH SULFUR RECOVERY UNIT, CAUSTIC SCRUBBER, AND SAFETY FLARE

PERMIT UNIT REQUIREMENTS

1. No modification to heater H-501 shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit
2. When heater H-501 is not operated, the fuel supply line shall be physically disconnected from this unit. [District Rule 4306] Federally Enforceable Through Title V Permit
3. Operator shall notify the District at least seven (7) calendar days prior to recommencing operation of this dormant heater, at which time this permit will be administratively modified to remove DEU references. [District Rule 4306] Federally Enforceable Through Title V Permit
4. A source test to demonstrate compliance with the indicated emission limits shall be performed within 60 days of recommencing operation of heater H-501. [District Rule 4306] Federally Enforceable Through Title V Permit
5. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup and shutdown. [District Rule 4305] Federally Enforceable Through Title V Permit
6. The duration of each startup and shutdown period for the 47.1 MMBtu/hr furnace #H-101 shall not exceed 12.0 hours and 2.0 hours respectively. Emission limits of Rule 4305 are waived during periods of startup and shutdown. [District Rule 4305, Section 5.5.6] Federally Enforceable Through Title V Permit
7. The duration of each startup and shutdown period for the 7.4 MMBtu/hr heater #H-201 shall not exceed 8.0 hours and 2.0 hours respectively. Emission limits of Rule 4305 are waived during periods of startup and shutdown. [District Rule 4305, Section 5.5.6] Federally Enforceable Through Title V Permit
8. The duration of each startup and shutdown period for the 17.0 MMBtu/hr heater #H-501 shall not exceed 7.25 hours and 2.0 hours respectively. Emission limits of Rule 4305 are waived during periods of startup and shutdown. [District Rule 4305, Section 5.5.6] Federally Enforceable Through Title V Permit
9. The duration of each startup and shutdown period for the 8.4 MMBtu/hr heater #H-601 shall not exceed 7.5 hours and 2.0 hours respectively. Emission limits of Rule 4305 are waived during periods of startup and shutdown. [District Rule 4305, Section 5.5.6] Federally Enforceable Through Title V Permit
10. The duration of each startup and shutdown period for the 7.4 MMBtu/hr heater #H-602 shall not exceed 7.5 hours and 2.0 hours respectively. Emission limits of Rule 4305 are waived during periods of startup and shutdown. [District Rule 4305, Section 5.5.6] Federally Enforceable Through Title V Permit
11. All equipment shall be constructed, maintained and operated according to the specifications and plans contained in the permit application except as otherwise specified herein. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

12. Equipment includes caustic scrubber S-303, caustic recirculation vessels A and B, and caustic recirculation pumps 970A and 970 B. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Equipment includes: 47.1 MMBtu/hr natural gas-fired and PSA offgas fired reformer furnace #H-101; 30.0 MMBtu/hr (limited to 17.0 MMBtu/hr by fuel limit) refinery fuel gas-fired 1st fractionator heater #H-501; and 7.44 MMBtu/hr refinery fuel gas-fired heater for #H-201 HDS reactor. [District Rule 2010] Federally Enforceable Through Title V Permit
14. Equipment includes: 10.5 MMBtu/hr (limited to 8 MMBtu/hr by fuel limit) refinery fuel gas-fired 3rd fractionator heater #H-602; and 8.4 MMBtu/hr refinery fuel gas-fired 2nd fractionator heater #H-601. [District Rule 2010] Federally Enforceable Through Title V Permit
15. Equipment includes draft fan C-101, reformer M-101, desulfur vessel V-101, shift convertor vessel V-102, process condenser drum V-103, and deaerator V-104. [District Rule 2010] Federally Enforceable Through Title V Permit
16. Equipment includes steam drum V-105, blowdown drum V-106, steam separator V-107, PSA adsorbers V-108 A,B,C & D, and offgas drum V-109. [District Rule 2010] Federally Enforceable Through Title V Permit
17. Equipment includes one 1275 bbl sour water pressure vessel, one 711 bbl, one 1275 bbl, and one 719 bbl light naphtha pressure vessels, and light naphtha loading rack with nitrogen purge system. [District Rule 2010] Federally Enforceable Through Title V Permit
18. Unit 200 (HDS section) includes oil filter A-201, O/H stripper B-201, coke drum B-202, intermediate stripper F-201, and HDS reactor R-201. [District Rule 2010] Federally Enforceable Through Title V Permit
19. Unit 300 (HDA section) includes hot separator B-301, recycle gas separator B-302, recycle gas compressor K/O drum B-310, hydrogen (H₂) gas compressors K-301 A/B, and HDA reactor R-301. [District Rule 2010] Federally Enforceable Through Title V Permit
20. Unit 400 (amine wash & sour water stripper) includes amine solution filter A-401, OH separator B-401, amine K/O drum B-402, amine solution flash drum B-403, amine adsorber F-401, amine regenerator F-402, and amine storage tank T-401. [District Rule 2010] Federally Enforceable Through Title V Permit
21. Unit 400 includes sour water flash drum B-411, slop oil drum B-412, sour water stripper F-410, and sour water feed tank T-411. [District Rule 2010] Federally Enforceable Through Title V Permit
22. Unit 500 (1st fractionator) includes OH separator B-501, HDA feed surge drum B-502, OH separator for light ends stripper B-503, coke drum B-504, 1st fractionator F-501, light ends stripper F-502, and 1st fractionator feed heater H-501. [District Rule 2010] Federally Enforceable Through Title V Permit
23. Unit 600 (2nd/3rd fractionators) includes 2nd fractionator accumulator B-601, 3rd fractionator accumulator B-602, 2nd fractionator F-601, 3rd fractionator F-602, and kero stripper F-603. [District Rule 2010] Federally Enforceable Through Title V Permit
24. Unit 600 includes heavy solvent stripper F-604, 2nd fractionator reboiler H-601, 3rd fractionator reboiler H-602, compressors K-601 A/B, and vacuum pumps K-602 A/B. [District Rule 2010] Federally Enforceable Through Title V Permit
25. Sulfur recovery unit includes liquified oxygen storage facility combustion oxygen enriched air blower 10-K-01A, spare combustion oxygen enriched air blower 10-K-01B, amine acid gas and NH₃ gas KO drums 10-V-01/02, and converter 1/2/3-common shell with hydrogenation reactor 10-V-04/05/06. [District Rule 2010] Federally Enforceable Through Title V Permit
26. Sulfur recovery unit includes sulfur pit vent eductor 10-K-02 (venting to thermal oxidizer 10-F-02), reaction furnace 10-F-01, thermal oxidizer and stack 10-F-02, sulfur pit 10-T-01, K/O drum sour water pumps 10-P-01 A/B, sulfur pump 10-P-03, and boiler feedwater pumps 10-P-04 A/B. [District Rule 2010] Federally Enforceable Through Title V Permit
27. Tailgas unit includes reducing gas generator (RGG) 11-F-01, contact condenser pumps 11-P-01 A/B, rich amine pumps 11-P-02 A/B, regenerator reflux pumps 11-P-03 A/B, amine sump pump 11-P-04, and lean amine pump 11-P-05. [District Rule 2010] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

28. Tail gas unit includes amine surge drum 11-T-01, hydrogenation reactor 11-V-01, contact condenser 11-V-02, amine absorber 11-V-03, amine regenerator 11-V-04, and regenerator reflux drum 11-V-05. [District Rule 2010] Federally Enforceable Through Title V Permit
29. The Claus sulfur recovery unit sulfur production shall not exceed six long tons per day. [District Rule 2201] Federally Enforceable Through Title V Permit
30. Fugitive emission rate from caustic scrubber S-303, caustic recirculation vessels A and B, and caustic recirculation pumps P-970-A and P-970-B, calculated using the California Implementation Guideline for Estimating Mass Emissions of Fugitive Hydrocarbon leaks at Petroleum Facilities, Table IV-2a. 1995 EPA Protocol, Refinery Screening Value Range Emissions Factors, shall not exceed 1.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
31. Permittee shall maintain accurate fugitive emissions component counts and calculation of resulting emissions from caustic scrubber S-303, caustic recirculation vessels A and B, and caustic recirculation pumps P-970-A and P-970-B using fugitive emissions factors described in this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
32. Gas leaks exceeding 10,000 ppmv and liquid leaks exceeding 3 drops per minute from the caustic scrubber S-303, caustic recirculation vessels A and B, and caustic recirculation pumps P-970-A and P-970-B are a violation of this permit and shall be reported as a deviation. [District Rule 2201] Federally Enforceable Through Title V Permit
33. Flare shall burn no more than 190,000 scf in any day of hydrogen plant gas, purchased natural gas, and all gases from diesel stripper, diesel hydrogenation flash drum, sour water stripper tank, vapors collected from S-36-104, and gases from heavy oil hydrofinisher processing unit on S-36-109. [Rule 2010] Federally Enforceable Through Title V Permit
34. Upon recommencing operation, permittee shall demonstrate fuel limitation for heater H-501 by either a non-resettable fuel meter for each heater and daily records of fuel use, or provide District approved documentation demonstrating how the fuel flow is limited to the permitted rating. [District NSR Rule] Federally Enforceable Through Title V Permit
35. Permittee shall demonstrate fuel limitation for heater H-602 by either a non-resettable fuel meter for each heater and daily records of fuel use, or provide District approved documentation demonstrating how the fuel flow is limited to the permitted rating. [District NSR Rule] Federally Enforceable Through Title V Permit
36. All gases from diesel stripper, diesel hydrogenation flash drum, and sour water stripper tank shall be sent to MEA section for sulfur compound removal except during plant shutdown or breakdown conditions pursuant to Rule 1100 when it shall be burned in the flare. [District NSR Rule] Federally Enforceable Through Title V Permit
37. Flare equipped with flared gas flow meter serving hydrogen plant gas, purchased natural gas, and all gases from diesel stripper, diesel hydrogenation flash drum, sour water stripper tank, vapors collected from S-36-104, and gases from heavy oil hydrofinisher processing unit on S-36-109. These gases shall only be flared during breakdown conditions pursuant to Rule 1100 and during plant shutdowns. [District Rule 4001] Federally Enforceable Through Title V Permit
38. Hydrogen sulfide analyzer/recorder shall be located at exit of tail gas unit prior to thermal oxidizer 10-F-02 and shall be operational and utilized except during bypass of the tail gas treating unit during startup or shutdown. [District Rule 2201] Federally Enforceable Through Title V Permit
39. Bypass of the tailgas unit will occur only when natural gas is supplied to the main reactor furnace during startup or shutdown of the sulfur recovery unit or tail gas treating unit. [District Rule 2201] Federally Enforceable Through Title V Permit
40. Pressure in sour water tank and light naphtha tanks shall be maintained above 15 psig. Sour water tank pressure relief valve shall be set at 40 psig and the light naphtha pressure relief valves shall be set at 50 psig and shall vent to atmosphere. [District Rule 4001] Federally Enforceable Through Title V Permit
41. Light naphtha liquid from overhead accumulator shall be sent to light naphtha pressure storage vessels. [District Rule 2201] Federally Enforceable Through Title V Permit
42. Overhead accumulator offgas shall be sent to the fuel gas compressor for introduction into fuel gas system, or shall be flared under plant breakdown conditions pursuant to Rule 1100. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

43. All sour water must be treated in sour water stripper prior to being exposed to the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
44. Sour water pressure tank shall vent to sulfur plant or shall vent to flare during breakdown conditions pursuant to Rule 1100. [District Rule 2201] Federally Enforceable Through Title V Permit
45. If thermal oxidizer 10-F-2 is inoperative, sour water shall not be pumped from sour water storage vessel and diesel hydrotreating unit and heavy oil hydrofinishing processing unit shall be shut down. [District Rule 2201] Federally Enforceable Through Title V Permit
46. Sulfur recovery unit and tailgas unit overall sulfur removal shall be no less than 99.8% by weight except during startup or shutdown conditions. [District Rule 2201] Federally Enforceable Through Title V Permit
47. The inlet gas stream to the thermal oxidizer shall not contain greater than 10 ppmv H₂S on a three hour rolling average basis except during startup or shutdown conditions of the sulfur recovery unit or tail gas treating unit. [District Rule 2201] Federally Enforceable Through Title V Permit
48. Startup and shutdown conditions for the sulfur recovery unit and tail gas treating unit combined shall not occur for more than 12 hours in any day. [District Rule 2201] Federally Enforceable Through Title V Permit
49. Thermal oxidizer sulfur compound emissions during startup or shutdown conditions of the sulfur recovery unit or tail gas treating unit shall not exceed 2000 ppm as SO₂. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
50. SO_x emissions from the sulfur recovery unit and tail gas treating unit through the thermal oxidizer shall not exceed 109.6 pounds per day. [District Rule 2201] Federally Enforceable Through Title V Permit
51. Only natural gas consisting primarily of methane and less than 5% by weight hydrocarbons heavier than butane and PSA offgas shall be combusted in reformer furnace #H-101. [District Rule 2201] Federally Enforceable Through Title V Permit
52. VOC emissions from fugitive emissions sources in this permit unit shall not exceed 27.99 lb per day. [District Rule 2201] Federally Enforceable Through Title V Permit
53. Emissions from process heater H-101 shall not exceed any of the following: PM₁₀: 0.0137 lb/MMBtu; NO_x (as NO₂): 0.036 lb/MMBtu or 30 ppmv @ 3% O₂; VOC: 0.0040 lb/MMBtu; or CO: 0.015 lb/MMBtu. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
54. Emissions from process heater H-201 shall not exceed any of the following: PM₁₀: 0.0137 lb/MMBtu; NO_x (as NO₂): 0.0353 lb/MMBtu or 29.4 ppmv @ 3% O₂; VOC: 0.0040 lb/MMBtu; or CO: 137 ppmv @ 3% O₂. [District Rule 2201] Federally Enforceable Through Title V Permit
55. Upon recommencing operation, emissions from process heater H-501 shall not exceed any of the following: PM₁₀: 0.0137 lb/MMBtu; NO_x (as NO₂): 0.036 lb/MMBtu or 30 ppmv @ 3% O₂; VOC: 0.0040 lb/MMBtu; or CO: 137 ppmv @ 3% O₂. [District Rules 2201, 4305, and 4306]
56. Emissions from process heaters H-602 shall not exceed any of the following: PM₁₀: 0.0137 lb/MMBtu; NO_x (as NO₂): 0.036 lb/MMBtu or 30 ppmv @ 3% O₂; VOC: 0.0040 lb/MMBtu; or CO: 137 ppmv @ 3% O₂. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
57. Emissions from process heater H-601 shall not exceed any of the following: PM₁₀: 0.0137 lb/MMBtu; NO_x (as NO₂): 0.036 lb/MMBtu or 30 ppmv @ 3% O₂; VOC: 0.0040 lb/MMBtu; or CO: 400 ppmv @ 3% O₂. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
58. Emissions from flare shall not exceed any of the following: PM₁₀: 2.7 lb/day, SO_x: 104.9 lb/day, NO_x: 6.8 lb/day, VOC: 7.4 lb/day, or CO: 70.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
59. Sulfur content of PSA offgas combusted in reformer furnace H-101 shall not exceed 0.0123 grains/dscf. Sampling of PSA offgas to determine compliance with sulfur content limit shall be conducted annually. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

60. Upon recommencing operation, sulfur content of fuel gas combusted by 1st fractionator feed heater H-501 shall not exceed 0.10 grains/dscf as determined on a rolling three (3) hour average basis. [District Rule 4001]
61. Sulfur content of fuel gas combusted by 2nd fractionator feed heater H-602 and heater H-201 shall not exceed 0.0553 grains/dscf as determined on a rolling three (3) hour average basis. [District Rule 2201] Federally Enforceable Through Title V Permit
62. Sulfur content of fuel gas combusted by 3rd fractionator feed heater H-601 shall not exceed 0.069 grains/dscf as determined on a rolling three (3) hour average basis. [District Rule 2201] Federally Enforceable Through Title V Permit
63. Permittee shall maintain accurate records of number of fugitive emissions components and calculated emissions using Technical Guidance Document to AB2588 for refineries Tables D1-D3, AP-42 Table 9.1-2, or other District approved emission factors. [District Rule 1070, and 2520, 9.4.2] Federally Enforceable Through Title V Permit
64. Permittee shall comply with all applicable inspection, maintenance, testing, and recordkeeping requirements of Rules 4451 and 4452. [District Rule 4451 and 4452] Federally Enforceable Through Title V Permit
65. Upon recommencing operation, heater H-501 shall be equipped with sampling facilities for source testing in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081]
66. All fired equipment, H-101, H-201, H-601, and H-602, shall be equipped with sampling facilities for source testing in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081] Federally Enforceable Through Title V Permit
67. Source testing of heaters H-101, H-201, H-501, H-601 and H-602 to measure NOx and CO emissions shall be conducted not less than once every 12 months, except as provided below. [District Rules 2520, 9.4.2, 4305 and 4351] Federally Enforceable Through Title V Permit
68. Source testing to measure NOx and CO emissions shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. [District Rules 2520, 9.4.2, 4305 and 4351] Federally Enforceable Through Title V Permit
69. If permittee fails any compliance demonstration for NOx or CO emission limits when testing not less than once every 36 months, compliance with NOx and CO emission limits shall be demonstrated not less than once every 12 months. [District Rules 2520, 9.4.2, 4305 and 4351] Federally Enforceable Through Title V Permit
70. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit
71. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
72. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
73. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, and stack gas oxygen - EPA Method 3 or 3A or ARB Method 100. [District Rules 1081, 4305, and 4351] Federally Enforceable Through Title V Permit
74. Permittee shall comply with all applicable notification, reporting, recordkeeping, testing, and maintenance requirements of Rule 4001 (40 CFR 60; subparts J, GGG, and QQQ). Heaters H-201, H-501, H-601, H-602, and the flare are subject to Subpart J. [District Rule 4001] Federally Enforceable Through Title V Permit
75. Equipment shall include monitoring system as required by 40 CFR 60, Subpart J for monitoring and recording of sulfur content (dry basis) of fuel gas (except PUC regulated natural gas, psa offgas, and combinations of only PUC gas and psa offgas) prior to combustion. [District Rule 4001] Federally Enforceable Through Title V Permit
76. The combustion in the flare, thermal oxidizer, or other fuel gas combustion device of gases released as a result of start-up, shutdown, upset, malfunction, or the result of relief valve leakage is exempt from the 0.1 gr/dscf H2S requirement. [District Rule 4001, Subpart J] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

77. Continuous emissions monitoring system shall be installed, calibrated, operated, and reported according to EPA guidelines as specified under 40 CFR 60, Subpart J, Specification 7, and general requirements. CEM results shall be calculated on a rolling three (3) hour basis. [District Rule 4001] Federally Enforceable Through Title V Permit
78. PSA gas monitoring shall be maintained pursuant to EPA approved alternate monitoring, one analysis for the sulfur content of the feedstock gas each reporting period and a statement confirming that the pipeline natural gas is the only feed to the hydrogen plant. [District Rule 4001] Federally Enforceable Through Title V Permit
79. Permittee shall maintain accurate daily records of amount of gas burned in the flare. [District Rule 1070, and 2520, 9.4.2] Federally Enforceable Through Title V Permit
80. Permittee shall sample flared gas for H₂S content twice daily. [District Rule 1070, and 2520, 9.4.2] Federally Enforceable Through Title V Permit
81. Permittee shall maintain accurate records of fuel consumption data, operational data, startup and shutdown condition frequency and duration of the sulfur recovery unit, and gas sulfur content to verify daily emission limit compliance. [District Rule 2201 and 1070] Federally Enforceable Through Title V Permit
82. All records required by this permit shall be made available for District inspection upon request for a period of five years. [District Rule 1070, and 2520, 9.5.2] Federally Enforceable Through Title V Permit
83. Operator shall not burn in any fuel gas combustion device any fuel gas that contains hydrogen sulfide (H₂S) in excess of 0.10 gr/dscf (230 mg/dscm). [40 CFR Part 60, subpart J, 60.104(a)(1)] Federally Enforceable Through Title V Permit
84. Operator shall report all rolling 3-hour periods during which the average concentration of H₂S as measured by the H₂S continuous monitoring system exceeds 0.10 gr/dscf (230 mg/dscm). [40 CFR Part 60, subpart J, 60.105(e)(3)(ii)] Federally Enforceable Through Title V Permit
85. Operator shall determine compliance with the H₂S standard using EPA Method 11. [40 CFR Part 60, subpart J, 60.106(e)] Federally Enforceable Through Title V Permit
86. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Amended December 16, 1993). [District Rule 1081, and Kern County Rule 108.1] Federally Enforceable Through Title V Permit
87. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results used to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel. [District Rule 2520, 9.4.2 and 40 CFR 60.48c(g)] Federally Enforceable Through Title V Permit
88. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit
89. Particulate matter emissions shall not exceed 0.1 grain/dscf, 0.1 grain/dscf calculated to 12% CO₂, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
90. Emissions of sulfur compounds from any of the following units, H-101, H-201, H-501, H-601, H-602 shall not exceed 200 lb per hour, calculated as SO₂. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rule 2520, 9.4.2 and District Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit
91. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

92. When complying with SO_x emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
93. If the unit is fired on noncertified gaseous fuel and compliance with SO_x emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
94. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by: ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit
95. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period (Kern County Rule 407). To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas; or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels; or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rules 2520, 9.4.2 and 4801] Federally Enforceable Through Title V Permit
96. Nitrogen oxide (NO_x) emission concentrations in ppmv shall be referenced at dry stack gas conditions, and shall be calculated to 3.00 percent by volume stack gas oxygen and averaged over 60 minutes, and lb/MMBtu rates shall be calculated as lb NO₂/MMBtu of heat input (hhv). [District Rule 2520, 9.4.2, 4305, 5.0, 8.2 and/or 4351, 8.1] Federally Enforceable Through Title V Permit
97. Emissions from H-101, H-201, H-501, H-601, and H-602 shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 forty-minute test runs for NO_x and CO. This mean shall be multiplied by the appropriate factor. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
98. The flare shall be operated according to the manufacturer's specifications, a copy of which shall be maintained on site. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
99. Flares shall only be used with the net heating value of the gas being combusted being 200 Btu/scf or greater if the flare is non-assisted; or with the net heating value of the gas being combusted being 300 Btu/scf or greater if the flare is air-assisted or steam-assisted. [40 CFR 60.18 (c)(3)] Federally Enforceable Through Title V Permit
100. The net heating value of the gas being combusted in a flare shall be calculated annually, pursuant to 40 CFR 60.18(f)(3) and using EPA Method 18, ASTM D1946, and ASTM D2382. [40 CFR 60.18 (f)(3-6)] Federally Enforceable Through Title V Permit
101. Air-assisted flares shall be operated with an exit velocity less than V_{max}, as determined by the equation specified in paragraph 40 CFR 60.18 (f)(6). [40 CFR 60.18 (c)(5)] Federally Enforceable Through Title V Permit
102. Nonassisted and steam-assisted flares shall be operated with an exit velocity, as determined by the methods specified in 40 CFR 60.18 (f)(4), less than 60 ft/sec, except as provided in 40 CFR 60.18 (c)(4)(ii) and (iii). [40 CFR 60.18 (c)(4)(i)] Federally Enforceable Through Title V Permit
103. Nonassisted and steam-assisted flares may be operated with an exit velocity, as determined by the methods specified in 40 CFR 60.18 (f)(4), equal to or greater than 60 ft/sec, but less than 400 ft/sec if the net heating value of the gas being combusted is greater than 1,000 Btu/scf. [40 CFR 60.18 (c)(4)(ii)] Federally Enforceable Through Title V Permit
104. Nonassisted and steam-assisted flares may be operated with an exit velocity, as determined by the methods specified in 40 CFR 60.18 (f)(4), less than the velocity, V_{max}, as determined by the equation specified in paragraph 40 CFR 60.18 (f)(5), and less than 400 ft/sec. [40 CFR 60.18 (c)(4)(iii)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

105. The actual exit velocity of a flare shall be determined by dividing the volumetric flowrate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip. [40 CFR 60.18 (f)(4)] Federally Enforceable Through Title V Permit
106. Flares shall be operated with a flame present at all times, and kept in operation when emissions may be vented to them. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame. [40 CFR 60.18 (c)(2), 60.18 (e), and 60.18 (f)(2)] Federally Enforceable Through Title V Permit
107. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
108. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of District Rule 4801, section 3.1 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
109. Heat exchangers 11-E-01A and 11-E-01B shall not operate concurrently. [District Rule 2010] Federally Enforceable Through Title V Permit
110. Permittee shall keep an accurate record of dates of inspection and monitoring, components inspected and monitored, and results of fugitive emissions calculations for compliance with the daily emission limit of the caustic scrubber S-303, caustic recirculation vessels A and B, and caustic recirculation pumps P-970-A and P-970-B. Such records shall be made readily available for District inspection upon request for a period of five years. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-36-58-1

EXPIRATION DATE: 08/31/2006

EQUIPMENT DESCRIPTION:

84,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK #2003

PERMIT UNIT REQUIREMENTS

1. True vapor pressure of the petroleum liquid stored shall be less than 1.5 psia. [40 CFR 60.112a(a)] Federally Enforceable Through Title V Permit
2. If the Reid vapor pressure of the petroleum liquid stored is greater than 1.0 psia, or the maximum true vapor pressure of the petroleum liquid is greater than 1.0 psia, then operator shall maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period. [40 CFR 60.115a(a) and 60.115a(d)(1)] Federally Enforceable Through Title V Permit
3. Maximum true vapor pressure may be determined from nomographs contained in API Bulletin 2517, by using the typical Reid vapor pressure and the maximum expected storage temperature of the stored product, unless the APCO specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s). [40 CFR 60.115a(b)] Federally Enforceable Through Title V Permit
4. Operator shall determine the true vapor pressure of each type of crude oil with a Reid vapor pressure less than 2.0 psia or whose physical properties preclude determination by the recommended method from available data and record if the true vapor pressure is greater than 1.0 psia. [40 CFR 60.115a(c)] Federally Enforceable Through Title V Permit
5. The operator shall determine the true vapor pressure of the petroleum liquid stored in the tank at least once per year in accordance with methods described in 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 12/17/92). Determinations shall be made annually during the summer, and whenever petroleum from a new source or of a new type is placed into the tank. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
6. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 12/17/92). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
7. As used in this permit, the term "type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of API gravity of petroleum liquids stored in this unit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-36-59-1

EXPIRATION DATE: 08/31/2006

SECTION: 24 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:

128,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK #3001

PERMIT UNIT REQUIREMENTS

1. True vapor pressure of the petroleum liquid stored shall be less than 1.5 psia. [40 CFR 60.112a(a)] Federally Enforceable Through Title V Permit
2. If the Reid vapor pressure of the petroleum liquid stored is greater than 1.0 psia, or the maximum true vapor pressure of the petroleum liquid is greater than 1.0 psia, then operator shall maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period. [40 CFR 60.115a(a) and 60.115a(d)(1)] Federally Enforceable Through Title V Permit
3. Maximum true vapor pressure may be determined from nomographs contained in API Bulletin 2517, by using the typical Reid vapor pressure and the maximum expected storage temperature of the stored product, unless the APCO specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s). [40 CFR 60.115a(b)] Federally Enforceable Through Title V Permit
4. Operator shall determine the true vapor pressure of each type of crude oil with a Reid vapor pressure less than 2.0 psia or whose physical properties preclude determination by the recommended method from available data and record if the true vapor pressure is greater than 1.0 psia. [40 CFR 60.115a(c)] Federally Enforceable Through Title V Permit
5. The operator shall determine the true vapor pressure of the petroleum liquid stored in the tank at least once per year in accordance with methods described in 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 12/17/92). Determinations shall be made annually during the summer, and whenever petroleum from a new source or of a new type is placed into the tank. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
6. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 12/17/92). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
7. As used in this permit, the term "type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of API gravity of petroleum liquids stored in this unit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-36-60-1

EXPIRATION DATE: 08/31/2006

SECTION: 24 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:

126,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK #3002

PERMIT UNIT REQUIREMENTS

1. True vapor pressure of the petroleum liquid stored shall be less than 1.5 psia. [40 CFR 60.112a(a)] Federally Enforceable Through Title V Permit
2. If the Reid vapor pressure of the petroleum liquid stored is greater than 1.0 psia, or the maximum true vapor pressure of the petroleum liquid is greater than 1.0 psia, then operator shall maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period. [40 CFR 60.115a(a) and 60.115a(d)(1)] Federally Enforceable Through Title V Permit
3. Maximum true vapor pressure may be determined from nomographs contained in API Bulletin 2517, by using the typical Reid vapor pressure and the maximum expected storage temperature of the stored product, unless the APCO specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s). [40 CFR 60.115a(b)] Federally Enforceable Through Title V Permit
4. Operator shall determine the true vapor pressure of each type of crude oil with a Reid vapor pressure less than 2.0 psia or whose physical properties preclude determination by the recommended method from available data and record if the true vapor pressure is greater than 1.0 psia. [40 CFR 60.115a(c)] Federally Enforceable Through Title V Permit
5. The operator shall determine the true vapor pressure of the petroleum liquid stored in the tank at least once per year in accordance with methods described in 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 12/17/92). Determinations shall be made annually during the summer, and whenever petroleum from a new source or of a new type is placed into the tank. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
6. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 12/17/92). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
7. As used in this permit, the term "type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of API gravity of petroleum liquids stored in this unit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-36-61-1

EXPIRATION DATE: 08/31/2006

SECTION: 24 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:

126,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK #3003

PERMIT UNIT REQUIREMENTS

1. True vapor pressure of the petroleum liquid stored shall be less than 1.5 psia. [40 CFR 60.112a(a)] Federally Enforceable Through Title V Permit
2. If the Reid vapor pressure of the petroleum liquid stored is greater than 1.0 psia, or the maximum true vapor pressure of the petroleum liquid is greater than 1.0 psia, then operator shall maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period. [40 CFR 60.115a(a) and 60.115a(d)(1)] Federally Enforceable Through Title V Permit
3. Maximum true vapor pressure may be determined from nomographs contained in API Bulletin 2517, by using the typical Reid vapor pressure and the maximum expected storage temperature of the stored product, unless the APCO specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s). [40 CFR 60.115a(b)] Federally Enforceable Through Title V Permit
4. Operator shall determine the true vapor pressure of each type of crude oil with a Reid vapor pressure less than 2.0 psia or whose physical properties preclude determination by the recommended method from available data and record if the true vapor pressure is greater than 1.0 psia. [40 CFR 60.115a(c)] Federally Enforceable Through Title V Permit
5. The operator shall determine the true vapor pressure of the petroleum liquid stored in the tank at least once per year in accordance with methods described in 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 12/17/92). Determinations shall be made annually during the summer, and whenever petroleum from a new source or of a new type is placed into the tank. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
6. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 12/17/92). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
7. As used in this permit, the term "type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of API gravity of petroleum liquids stored in this unit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-36-62-1

EXPIRATION DATE: 08/31/2006

SECTION: 24 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:

126,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK #3004

PERMIT UNIT REQUIREMENTS

1. True vapor pressure of the petroleum liquid stored shall be less than 1.5 psia. [40 CFR 60.112a(a)] Federally Enforceable Through Title V Permit
2. If the Reid vapor pressure of the petroleum liquid stored is greater than 1.0 psia, or the maximum true vapor pressure of the petroleum liquid is greater than 1.0 psia, then operator shall maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period. [40 CFR 60.115a(a) and 60.115a(d)(1)] Federally Enforceable Through Title V Permit
3. Maximum true vapor pressure may be determined from nomographs contained in API Bulletin 2517, by using the typical Reid vapor pressure and the maximum expected storage temperature of the stored product, unless the APCO specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s). [40 CFR 60.115a(b)] Federally Enforceable Through Title V Permit
4. Operator shall determine the true vapor pressure of each type of crude oil with a Reid vapor pressure less than 2.0 psia or whose physical properties preclude determination by the recommended method from available data and record if the true vapor pressure is greater than 1.0 psia. [40 CFR 60.115a(c)] Federally Enforceable Through Title V Permit
5. The operator shall determine the true vapor pressure of the petroleum liquid stored in the tank at least once per year in accordance with methods described in 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 12/17/92). Determinations shall be made annually during the summer, and whenever petroleum from a new source or of a new type is placed into the tank. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
6. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 12/17/92). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
7. As used in this permit, the term "type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of API gravity of petroleum liquids stored in this unit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-36-63-1

EXPIRATION DATE: 08/31/2006

SECTION: 24 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:

126,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK #3005

PERMIT UNIT REQUIREMENTS

1. True vapor pressure of the petroleum liquid stored shall be less than 1.5 psia. [40 CFR 60.112a(a)] Federally Enforceable Through Title V Permit
2. If the Reid vapor pressure of the petroleum liquid stored is greater than 1.0 psia, or the maximum true vapor pressure of the petroleum liquid is greater than 1.0 psia, then operator shall maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period. [40 CFR 60.115a(a) and 60.115a(d)(1)] Federally Enforceable Through Title V Permit
3. Maximum true vapor pressure may be determined from nomographs contained in API Bulletin 2517, by using the typical Reid vapor pressure and the maximum expected storage temperature of the stored product, unless the APCO specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s). [40 CFR 60.115a(b)] Federally Enforceable Through Title V Permit
4. Operator shall determine the true vapor pressure of each type of crude oil with a Reid vapor pressure less than 2.0 psia or whose physical properties preclude determination by the recommended method from available data and record if the true vapor pressure is greater than 1.0 psia. [40 CFR 60.115a(c)] Federally Enforceable Through Title V Permit
5. The operator shall determine the true vapor pressure of the petroleum liquid stored in the tank at least once per year in accordance with methods described in 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 12/17/92). Determinations shall be made annually during the summer, and whenever petroleum from a new source or of a new type is placed into the tank. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
6. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 12/17/92). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
7. As used in this permit, the term "type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of API gravity of petroleum liquids stored in this unit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-36-64-1

EXPIRATION DATE: 08/31/2006

SECTION: 24 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:

126,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK #3006

PERMIT UNIT REQUIREMENTS

1. True vapor pressure of the petroleum liquid stored shall be less than 1.5 psia. [40 CFR 60.112a(a)] Federally Enforceable Through Title V Permit
2. If the Reid vapor pressure of the petroleum liquid stored is greater than 1.0 psia, or the maximum true vapor pressure of the petroleum liquid is greater than 1.0 psia, then operator shall maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period. [40 CFR 60.115a(a) and 60.115a(d)(1)] Federally Enforceable Through Title V Permit
3. Maximum true vapor pressure may be determined from nomographs contained in API Bulletin 2517, by using the typical Reid vapor pressure and the maximum expected storage temperature of the stored product, unless the APCO specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s). [40 CFR 60.115a(b)] Federally Enforceable Through Title V Permit
4. Operator shall determine the true vapor pressure of each type of crude oil with a Reid vapor pressure less than 2.0 psia or whose physical properties preclude determination by the recommended method from available data and record if the true vapor pressure is greater than 1.0 psia. [40 CFR 60.115a(c)] Federally Enforceable Through Title V Permit
5. The operator shall determine the true vapor pressure of the petroleum liquid stored in the tank at least once per year in accordance with methods described in 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 12/17/92). Determinations shall be made annually during the summer, and whenever petroleum from a new source or of a new type is placed into the tank. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
6. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 12/17/92). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
7. As used in this permit, the term "type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of API gravity of petroleum liquids stored in this unit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-36-65-1

EXPIRATION DATE: 08/31/2006

SECTION: 24 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:

210,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK #5001

PERMIT UNIT REQUIREMENTS

1. True vapor pressure of the petroleum liquid stored shall be less than 1.5 psia. [40 CFR 60.112a(a)] Federally Enforceable Through Title V Permit
2. If the Reid vapor pressure of the petroleum liquid stored is greater than 1.0 psia, or the maximum true vapor pressure of the petroleum liquid is greater than 1.0 psia, then operator shall maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period. [40 CFR 60.115a(a) and 60.115a(d)(1)] Federally Enforceable Through Title V Permit
3. Maximum true vapor pressure may be determined from nomographs contained in API Bulletin 2517, by using the typical Reid vapor pressure and the maximum expected storage temperature of the stored product, unless the APCO specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s). [40 CFR 60.115a(b)] Federally Enforceable Through Title V Permit
4. Operator shall determine the true vapor pressure of each type of crude oil with a Reid vapor pressure less than 2.0 psia or whose physical properties preclude determination by the recommended method from available data and record if the true vapor pressure is greater than 1.0 psia. [40 CFR 60.115a(c)] Federally Enforceable Through Title V Permit
5. The operator shall determine the true vapor pressure of the petroleum liquid stored in the tank at least once per year in accordance with methods described in 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 12/17/92). Determinations shall be made annually during the summer, and whenever petroleum from a new source or of a new type is placed into the tank. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
6. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 12/17/92). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
7. As used in this permit, the term "type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of API gravity of petroleum liquids stored in this unit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-36-66-1

EXPIRATION DATE: 08/31/2006

SECTION: 24 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:

210,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK #5002

PERMIT UNIT REQUIREMENTS

1. True vapor pressure of the petroleum liquid stored shall be less than 1.5 psia. [40 CFR 60.112a(a)] Federally Enforceable Through Title V Permit
2. If the Reid vapor pressure of the petroleum liquid stored is greater than 1.0 psia, or the maximum true vapor pressure of the petroleum liquid is greater than 1.0 psia, then operator shall maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period. [40 CFR 60.115a(a) and 60.115a(d)(1)] Federally Enforceable Through Title V Permit
3. Maximum true vapor pressure may be determined from nomographs contained in API Bulletin 2517, by using the typical Reid vapor pressure and the maximum expected storage temperature of the stored product, unless the APCO specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s). [40 CFR 60.115a(b)] Federally Enforceable Through Title V Permit
4. Operator shall determine the true vapor pressure of each type of crude oil with a Reid vapor pressure less than 2.0 psia or whose physical properties preclude determination by the recommended method from available data and record if the true vapor pressure is greater than 1.0 psia. [40 CFR 60.115a(c)] Federally Enforceable Through Title V Permit
5. The operator shall determine the true vapor pressure of the petroleum liquid stored in the tank at least once per year in accordance with methods described in 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 12/17/92). Determinations shall be made annually during the summer, and whenever petroleum from a new source or of a new type is placed into the tank. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
6. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 12/17/92). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
7. As used in this permit, the term "type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of API gravity of petroleum liquids stored in this unit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-36-67-1

EXPIRATION DATE: 08/31/2006

SECTION: 24 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:

210,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK #5003

PERMIT UNIT REQUIREMENTS

1. True vapor pressure of the petroleum liquid stored shall be less than 1.5 psia. [40 CFR 60.112a(a)] Federally Enforceable Through Title V Permit
2. If the Reid vapor pressure of the petroleum liquid stored is greater than 1.0 psia, or the maximum true vapor pressure of the petroleum liquid is greater than 1.0 psia, then operator shall maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period. [40 CFR 60.115a(a) and 60.115a(d)(1)] Federally Enforceable Through Title V Permit
3. Maximum true vapor pressure may be determined from nomographs contained in API Bulletin 2517, by using the typical Reid vapor pressure and the maximum expected storage temperature of the stored product, unless the APCO specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s). [40 CFR 60.115a(b)] Federally Enforceable Through Title V Permit
4. Operator shall determine the true vapor pressure of each type of crude oil with a Reid vapor pressure less than 2.0 psia or whose physical properties preclude determination by the recommended method from available data and record if the true vapor pressure is greater than 1.0 psia. [40 CFR 60.115a(c)] Federally Enforceable Through Title V Permit
5. The operator shall determine the true vapor pressure of the petroleum liquid stored in the tank at least once per year in accordance with methods described in 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 12/17/92). Determinations shall be made annually during the summer, and whenever petroleum from a new source or of a new type is placed into the tank. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
6. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 12/17/92). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
7. As used in this permit, the term "type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of API gravity of petroleum liquids stored in this unit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-36-68-1

EXPIRATION DATE: 08/31/2006

SECTION: 24 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:

210,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK #5004

PERMIT UNIT REQUIREMENTS

1. True vapor pressure of the petroleum liquid stored shall be less than 1.5 psia. [40 CFR 60.112a(a)] Federally Enforceable Through Title V Permit
2. If the Reid vapor pressure of the petroleum liquid stored is greater than 1.0 psia, or the maximum true vapor pressure of the petroleum liquid is greater than 1.0 psia, then operator shall maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period. [40 CFR 60.115a(a) and 60.115a(d)(1)] Federally Enforceable Through Title V Permit
3. Maximum true vapor pressure may be determined from nomographs contained in API Bulletin 2517, by using the typical Reid vapor pressure and the maximum expected storage temperature of the stored product, unless the APCO specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s). [40 CFR 60.115a(b)] Federally Enforceable Through Title V Permit
4. Operator shall determine the true vapor pressure of each type of crude oil with a Reid vapor pressure less than 2.0 psia or whose physical properties preclude determination by the recommended method from available data and record if the true vapor pressure is greater than 1.0 psia. [40 CFR 60.115a(c)] Federally Enforceable Through Title V Permit
5. The operator shall determine the true vapor pressure of the petroleum liquid stored in the tank at least once per year in accordance with methods described in 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 12/17/92). Determinations shall be made annually during the summer, and whenever petroleum from a new source or of a new type is placed into the tank. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
6. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 12/17/92). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
7. As used in this permit, the term "type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of API gravity of petroleum liquids stored in this unit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-36-69-1

EXPIRATION DATE: 08/31/2006

SECTION: 24 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:

420,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK #10002

PERMIT UNIT REQUIREMENTS

1. True vapor pressure of the petroleum liquid stored shall be less than 1.5 psia. [40 CFR 60.112a(a)] Federally Enforceable Through Title V Permit
2. If the Reid vapor pressure of the petroleum liquid stored is greater than 1.0 psia, or the maximum true vapor pressure of the petroleum liquid is greater than 1.0 psia, then operator shall maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period. [40 CFR 60.115a(a) and 60.115a(d)(1)] Federally Enforceable Through Title V Permit
3. Maximum true vapor pressure may be determined from nomographs contained in API Bulletin 2517, by using the typical Reid vapor pressure and the maximum expected storage temperature of the stored product, unless the APCO specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s). [40 CFR 60.115a(b)] Federally Enforceable Through Title V Permit
4. Operator shall determine the true vapor pressure of each type of crude oil with a Reid vapor pressure less than 2.0 psia or whose physical properties preclude determination by the recommended method from available data and record if the true vapor pressure is greater than 1.0 psia. [40 CFR 60.115a(c)] Federally Enforceable Through Title V Permit
5. The operator shall determine the true vapor pressure of the petroleum liquid stored in the tank at least once per year in accordance with methods described in 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 12/17/92). Determinations shall be made annually during the summer, and whenever petroleum from a new source or of a new type is placed into the tank. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
6. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 12/17/92). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
7. As used in this permit, the term "type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of API gravity of petroleum liquids stored in this unit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-36-70-1

EXPIRATION DATE: 08/31/2006

SECTION: 24 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:

420,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK #10003

PERMIT UNIT REQUIREMENTS

1. True vapor pressure of the petroleum liquid stored shall be less than 1.5 psia. [40 CFR 60.112a(a)] Federally Enforceable Through Title V Permit
2. If the Reid vapor pressure of the petroleum liquid stored is greater than 1.0 psia, or the maximum true vapor pressure of the petroleum liquid is greater than 1.0 psia, then operator shall maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period. [40 CFR 60.115a(a) and 60.115a(d)(1)] Federally Enforceable Through Title V Permit
3. Maximum true vapor pressure may be determined from nomographs contained in API Bulletin 2517, by using the typical Reid vapor pressure and the maximum expected storage temperature of the stored product, unless the APCO specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s). [40 CFR 60.115a(b)] Federally Enforceable Through Title V Permit
4. Operator shall determine the true vapor pressure of each type of crude oil with a Reid vapor pressure less than 2.0 psia or whose physical properties preclude determination by the recommended method from available data and record if the true vapor pressure is greater than 1.0 psia. [40 CFR 60.115a(c)] Federally Enforceable Through Title V Permit
5. The operator shall determine the true vapor pressure of the petroleum liquid stored in the tank at least once per year in accordance with methods described in 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 12/17/92). Determinations shall be made annually during the summer, and whenever petroleum from a new source or of a new type is placed into the tank. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
6. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 12/17/92). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
7. As used in this permit, the term "type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of API gravity of petroleum liquids stored in this unit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-36-71-1

EXPIRATION DATE: 08/31/2006

SECTION: 24 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:

840,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK #20008

PERMIT UNIT REQUIREMENTS

1. True vapor pressure of the petroleum liquid stored shall be less than 1.5 psia. [40 CFR 60.112a(a)] Federally Enforceable Through Title V Permit
2. If the Reid vapor pressure of the petroleum liquid stored is greater than 1.0 psia, or the maximum true vapor pressure of the petroleum liquid is greater than 1.0 psia, then operator shall maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period. [40 CFR 60.115a(a) and 60.115a(d)(1)] Federally Enforceable Through Title V Permit
3. Maximum true vapor pressure may be determined from nomographs contained in API Bulletin 2517, by using the typical Reid vapor pressure and the maximum expected storage temperature of the stored product, unless the APCO specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s). [40 CFR 60.115a(b)] Federally Enforceable Through Title V Permit
4. Operator shall determine the true vapor pressure of each type of crude oil with a Reid vapor pressure less than 2.0 psia or whose physical properties preclude determination by the recommended method from available data and record if the true vapor pressure is greater than 1.0 psia. [40 CFR 60.115a(c)] Federally Enforceable Through Title V Permit
5. The operator shall determine the true vapor pressure of the petroleum liquid stored in the tank at least once per year in accordance with methods described in 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 12/17/92). Determinations shall be made annually during the summer, and whenever petroleum from a new source or of a new type is placed into the tank. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
6. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 12/17/92). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
7. As used in this permit, the term "type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of API gravity of petroleum liquids stored in this unit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-36-72-1

EXPIRATION DATE: 08/31/2006

SECTION: 24 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:

840,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK #20009

PERMIT UNIT REQUIREMENTS

1. True vapor pressure of the petroleum liquid stored shall be less than 1.5 psia. [40 CFR 60.112a(a)] Federally Enforceable Through Title V Permit
2. If the Reid vapor pressure of the petroleum liquid stored is greater than 1.0 psia, or the maximum true vapor pressure of the petroleum liquid is greater than 1.0 psia, then operator shall maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period. [40 CFR 60.115a(a) and 60.115a(d)(1)] Federally Enforceable Through Title V Permit
3. Maximum true vapor pressure may be determined from nomographs contained in API Bulletin 2517, by using the typical Reid vapor pressure and the maximum expected storage temperature of the stored product, unless the APCO specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s). [40 CFR 60.115a(b)] Federally Enforceable Through Title V Permit
4. Operator shall determine the true vapor pressure of each type of crude oil with a Reid vapor pressure less than 2.0 psia or whose physical properties preclude determination by the recommended method from available data and record if the true vapor pressure is greater than 1.0 psia. [40 CFR 60.115a(c)] Federally Enforceable Through Title V Permit
5. The operator shall determine the true vapor pressure of the petroleum liquid stored in the tank at least once per year in accordance with methods described in 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 12/17/92). Determinations shall be made annually during the summer, and whenever petroleum from a new source or of a new type is placed into the tank. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
6. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 12/17/92). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
7. As used in this permit, the term "type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of API gravity of petroleum liquids stored in this unit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-36-76-2

EXPIRATION DATE: 08/31/2006

SECTION: 24 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:

19 MMBTU/HR TITUSVILLE BOILER

PERMIT UNIT REQUIREMENTS

1. This permit unit shall not be operated unless the owner or operator applies to modify the Title V permit to address the requirements of District Rule 2520, section 9.0 for this permit unit. [District Rule 2520, 9.0] Federally Enforceable Through Title V Permit
2. This equipment shall not be operated for any reason until necessary retrofits are made to comply with the applicable requirements of District Rule 4305. [District Rule 4305]
3. No modification to this unit shall be performed without an Authority to Construct for that modification(s), except for changes specified in condition 4 below. [District Rule 2201]
4. The fuel supply line shall be physically disconnected from this unit. [District Rule 2080]
5. After 12/31/00 emissions from this unit shall not exceed any of the following: NO_x (as NO₂): 30 ppmv @3% O₂; or CO: 400 ppmv @3% O₂. [District Rule 4305]
6. A source test to demonstrate compliance with the indicated emission limits shall be performed within 60 days of recommencing operation of this unit. [District Rule 2201]
7. Permittee shall notify the District at least seven (7) calendar days prior to recommencing operation. [District Rule 1070]
8. In months when this unit is operating, the stack concentration of NO_x (as NO₂), CO, and O₂ shall be measured at least on a monthly basis using District approved portable analyzers. [District Rule 4305]
9. The permittee shall maintain records of the date and time of NO_x, CO, and O₂ measurements, the measured NO₂ and CO concentrations corrected to 3% O₂, and the O₂ concentration. The records shall also include a description of any corrective action taken to maintain the emissions in the acceptable range. These records shall be retained at the facility for a period of no less than two years and shall be made readily available for District inspection upon request. [District Rules 1070 and 4305]
10. If the NO_x and/or CO concentrations, as measured by the portable analyzer, exceed the permitted emission limits, the permittee or third party shall notify the District and return the NO_x and CO concentrations to the permitted emission limits as soon as possible but no longer than one (1) hour after detection. If the portable analyzer readings continue to exceed the permitted emission limits after (1) hour, the permittee shall conduct a source test within 60 days, of the first exceedance to demonstrate compliance with the permitted emission limits. [District Rule 4305]

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-36-80-1

EXPIRATION DATE: 08/31/2006

SECTION: 24 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:

FUEL GAS SYSTEM INCLUDING TWO 2 HP CAUSTIC CIRCULATION PUMPS, 10 HP CAUSTIC TRANSFER PUMP, PACKED-BED CAUSTIC DESULFURIZATION SCRUBBER WITH BED OF GLITSCH BALLAST PACKING, AND 100 BBL CAUSTIC CIRCULATION TANK.

PERMIT UNIT REQUIREMENTS

1. Operation shall include gas piping from visbreaker (S-36-42) fuel oil stripper, overhead accumulator, and sour water stripper; General Monitor Inc. model 2170 continuous H₂S analyzer/recorder following scrubber outlet. [District Rule 2010] Federally Enforceable Through Title V Permit
2. Operation shall include desulfurized fuel gas piping from scrubber to crude heaters S-36-1 and vacuum heater in S-36-4. [District Rule 2010] Federally Enforceable Through Title V Permit
3. Fuel gas system shall be regulated to maintain 10 psig in fuel gas piping. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Circulation tank shall be equipped with an operational pH indicator. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Caustic recirculation pump shall be equipped with an operational volume flowrate indicator. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Caustic from transfer pump shall be piped via closed piping only to closed caustic holding tank. [District NSR Rule] Federally Enforceable Through Title V Permit
7. H₂S content of scrubbed fuel gas shall not exceed 159 ppmv. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Scrubber recirculation liquid flowrate shall be at least 4.6 gal/min. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Gas flowrate to scrubber shall not exceed 590 acfm. [District NSR Rule] Federally Enforceable Through Title V Permit
10. Scrubber recirculation liquid pH shall be maintained only by the addition of caustic unless prior approval for an alternative pH maintenance method is received from the District. [District NSR Rule] Federally Enforceable Through Title V Permit
11. Scrubber blowdown shall be intermittently pumped via closed piping to existing, closed, spent caustic storage tank in a manner preventing VOC and odoriferous emissions. [District NSR Rule, Rule 1070] Federally Enforceable Through Title V Permit
12. Continuous H₂S analyzer/recorder records of H₂S concentration in refinery process fuel gas shall be maintained for a period of at least five years and made readily available for District inspection upon request. [District Rule 4102, District NSR Rule, District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

13. Permittee shall comply with all applicable inspection, maintenance, and recordkeeping requirements of Rules 4451 and 4452. [District Rules 4451, 4452] Federally Enforceable Through Title V Permit
14. Scrubber liquid flow rate and fuel gas piping pressure shall be observed and recorded weekly during operation of this unit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
15. Records of scrubber liquid flow rate and fuel gas piping pressure shall be maintained. The records shall include identification of the equipment, date of inspection, corrective action taken, and identification of the individual performing the inspection. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-36-81-1

EXPIRATION DATE: 08/31/2006

SECTION: 24 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:

84,000 GALLON FIXED ROOF NAPHTHA STORAGE TANK WITH HMT TANK SERVICE INC. INTERNAL FLOATING ROOF

PERMIT UNIT REQUIREMENTS

1. There shall be no gap between seal and tank wall. [District Rule 4001, and 40 CFR 60 Subpart Ka] Federally Enforceable Through Title V Permit
2. All gauge hatches, roof supports, manholes, automatic bleeder vents, rim vents, gauge wells & guide poles shall be fitted with gas-tight (as defined in Rule 4623) seals or with vents set to within 10% of the maximum allowable working pressure. [District Rule 4623] Federally Enforceable Through Title V Permit
3. All openings in tank roof shall be equipped with projection which extends below liquid surface. [District Rule 4623 and 40 CFR 60.112a(2)] Federally Enforceable Through Title V Permit
4. Any roof drain shall be provided with a slotted membrane fabric cover, or equivalent, that covers at least 90% of the area of the opening. [District Rule 4623] Federally Enforceable Through Title V Permit
5. Slotted gauge well/roof guide shall be equipped with internal sleeve without slots. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Gauge well/roof guide shall be equipped with internal float equipped with wiper seal which closes space between float and gauge well wall. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Gauge well/roof guide shall be equipped with external wiper seal which closes space between floating roof and gauge well. [District Rule 4623] Federally Enforceable Through Title V Permit
8. There shall be no provisions for draining water from this tank to the sewer, refinery drains, or the oil/water separation operation equipment. [District NSR Rule] Federally Enforceable Through Title V Permit
9. True vapor pressure at storage temperature shall not exceed 2.7 psia. [District NSR Rule] Federally Enforceable Through Title V Permit
10. Internal floating roof shall be floating at all times (i.e., off the leg supports) except during initial fill and when the tank is completely emptied and subsequently refilled. [District Rule 4001 and 40 CFR 60 Subpart Ka] Federally Enforceable Through Title V Permit
11. There shall be no holes, tears, or openings in seal which allow uncontrolled VOC emissions. [District Rule 4623] Federally Enforceable Through Title V Permit
12. The permittee shall keep accurate records of Reid vapor pressure, storage temperature and daily throughput rate, for a period of five years, and shall make such records available for District inspection upon request. [District NSR Rule and 2520, 9.4.2, 9.5.2] Federally Enforceable Through Title V Permit
13. Permittee shall comply with all applicable inspection, maintenance, and recordkeeping requirements of Rule 4623 and Rule 4001. [District Rule 4001, 4623, and 40 CFR 60 Subpart Ka] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

14. The operator shall determine the true vapor pressure of the petroleum liquid stored in the tank at least once per year in accordance with methods described in 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 12/17/92). Determinations shall be made annually during the summer, and whenever petroleum from a new source or of a new type is placed into the tank. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
15. As used in this permit, the term "type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of API gravity of petroleum liquids stored in this unit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-36-82-1

EXPIRATION DATE: 08/31/2006

SECTION: 24 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:

NAPHTHA TRUCK LOADING OPERATION INCLUDING LOADING PUMP WITH 15 HP ELECTRIC MOTOR, 4" DIA. FLEXIBLE BOTTOM LOADING HOSE, AND EMCO WHEATON MODEL J1410 OR J1411 BUCKEYE DRY-BREAK COUPLER

PERMIT UNIT REQUIREMENTS

1. True vapor pressure of any organic liquid being loaded shall be less than 1.5 psia at actual loading temperature. [District Rule 4624, 4.3 and 2010] Federally Enforceable Through Title V Permit
2. The operator shall maintain accurate daily records of liquid throughput, loading temperature and liquid TVP to verify continued exemption from District Rule 4624 (Amended December 17, 1992). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
3. Naphtha loading shall be by bottom loading only. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Naphtha loadout rate shall not exceed 7,644 gal/day. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Loading pump shall be utilized only for naphtha from tank S-36-81. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Naphtha loadout hose and coupler shall be operated and maintained in a dripless condition at all times. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Loading operation area drains shall be closed-piped to closed oil water separator to prevent VOC emissions. [District NSR Rule] Federally Enforceable Through Title V Permit
8. The operator shall determine the true vapor pressure of the organic liquid stored in the tank at least once per year in accordance with methods described in section 6.2 of District Rule 4624 (amended 12/17/92). Determinations shall be made annually during the summer and whenever there is a change in the source or type of organic liquid entering the tank. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. As used in this permit, the term "type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of API gravity of petroleum liquids stored in this unit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-36-99-1

EXPIRATION DATE: 08/31/2006

SECTION: NE24 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:

12.6 MMBTU/HR OIL/GAS FIRED STANDBY BOILER

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel. [District Rule 2520, 9.4.2 and 40 CFR 60.48c(g)] Federally Enforceable Through Title V Permit
2. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit
3. Particulate matter emissions shall not exceed 0.1 grain/dscf, 0.1 grain/dscf calculated to 12% CO₂, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
4. Source testing shall be performed using EPA Method 5 while firing on residual oil (including crude or topped crude) to demonstrate compliance with PM emission limits. Source testing shall be performed within 90 days of firing on residual oil unless such testing has been performed within the 12 month period prior to firing on said oil and the test results showed compliance with PM emission limits of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
5. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO₂. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rule 2520, 9.4.2 and District Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit
6. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
7. When complying with SO_x emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: SAN JOAQUIN REFINING COMPANY

Location: STANDARD AND SHELL ST, BAKERSFIELD, CA 93308

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8. If the unit is fired on noncertified gaseous fuel and compliance with SO_x emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. If the unit is fired on noncertified liquid fuel and compliance with SO_x emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the liquid fuel being fired in the unit shall be determined using ASTM D 2880. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by: ASTM D 240 or D 2382 for liquid hydrocarbon fuels; ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit
11. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period (Kern County Rule 407). To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas; or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels or 3.0% by weight for residual oil (including crude or topped crude); or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
12. Nitrogen oxide (NO_x) emission concentrations in ppmv shall be referenced at dry stack gas conditions, and shall be calculated to 3.00 percent by volume stack gas oxygen and averaged over 60 minutes, and lb/MMBtu rates shall be calculated as lb NO₂/MMBtu of heat input (hhv). [District Rule 4305, 5.0, 8.2 and/or 4351, 8.1] Federally Enforceable Through Title V Permit
13. Fuel oil preheat and atomization equipment shall be operated and maintained as intended by the manufacturer. [District NSR Rule] Federally Enforceable Through Title V Permit
14. This unit shall either be tuned pursuant to the requirements of Rule 4304 for standby units annually, or shall operate in a manner that maintains exhaust oxygen concentrations at less than 3.0 percent by volume on a dry basis. [District Rule 4305]
15. This unit shall only operate during breakdown or maintenance of unit S-36-41. Except for periods of startup or shutdown, this unit shall not operate when unit S-36-41 is operating. [District NSR Rule, 4305, & 4351] Federally Enforceable Through Title V Permit
16. Emission rates shall not exceed any of the following when firing on oil: PM₁₀: 0.095 lb/MMBtu, SO_x: 1.3 lb/MMBtu, NO_x (as NO₂): 0.45 lb/MMBtu, VOC: 0.0051 lb/MMBtu, CO: 0.033 lb/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
17. Emission rates shall not exceed any of the following when firing on natural gas: PM₁₀: 0.0137 lb/MMBtu, SO_x: 0.0006 lb/MMBtu, NO_x (as NO₂): 0.14 lb/MMBtu, VOC: 0.0028 lb/MMBtu, CO: 0.035 lb/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
18. The boiler shall be equipped with an operational totalizing mass or volumetric fuel flow meter in each fuel line to the unit. [District Rules 2520, 9.4.2, 4305 and 4351] Federally Enforceable Through Title V Permit
19. Annual heat input shall not exceed 9 billion Btu/year. [District Rules 2520, 9.4.2, 4305 and 4351] Federally Enforceable Through Title V Permit
20. Annual records of each type of fuel used for the boiler shall be maintained, retained on the premises for at least five years, and be made available for District inspection upon request. [District Rules 2520, 9.5.2, 4305 & 4351] Federally Enforceable Through Title V Permit
21. Permittee shall maintain accurate records of annual fuel use for a period of five years and make such records readily available for District inspection upon request. [District Rules 2520, 9.5.2, 4305 & 4351] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

22. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
23. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of District Rule 4801, section 3.1 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-36-100-1

EXPIRATION DATE: 08/31/2006

SECTION: 24 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:

LOADING RACKS #1, #2, #3, AND #5

PERMIT UNIT REQUIREMENTS

1. True vapor pressure of any organic liquid being loaded shall be less than 1.5 psia at actual loading temperature. [District Rule 4624, 4.3 and 2010] Federally Enforceable Through Title V Permit
2. The operator shall maintain accurate daily records of liquid throughput, loading temperature and liquid TVP to verify continued exemption from District Rule 4624 (Amended December 17, 1992). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall determine the true vapor pressure of the organic liquid stored in the tank at least once per year in accordance with methods described in section 6.2 of District Rule 4624 (amended 12/17/92). Determinations shall be made annually during the summer and whenever there is a change in the source or type of organic liquid entering the tank. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. As used in this permit, the term "type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of API gravity of petroleum liquids stored in this unit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: SAN JOAQUIN REFINING COMPANY

Location: STANDARD AND SHELL ST, BAKERSFIELD, CA 93308

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-36-101-4

EXPIRATION DATE: 08/31/2006

SECTION: 24 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:

LOADING RACK OPERATION WITH RACKS 6, 7, AND 13

PERMIT UNIT REQUIREMENTS

1. Loading racks #6 and #7 shall not load liquids exceeding a True Vapor Pressure of 1.5 psia. [District NSR Rule] Federally Enforceable Through Title V Permit
2. Loading rack #13 shall not load liquids exceeding a True Vapor Pressure of 0.25 psia on a daily average. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Throughput through loading rack #13 shall not exceed 2000 bbl per day. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Loading rack #13 shall utilize a balance system tied to kerosene and mineral spirits storage vessels. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Total liquid drainage/leaks from loading rack #13 shall not exceed 5 ml per dry-break coupler disconnect. [District NSR Rule] Federally Enforceable Through Title V Permit
6. There shall be no more than seventeen (17) liquid-end dry break coupler disconnects per day at loading rack #13. [District NSR Rule] Federally Enforceable Through Title V Permit
7. There shall be no more than seventeen (17) vapor-end dry break coupler disconnects per day at loading rack #13. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Permittee shall comply with all applicable inspection, maintenance, testing, and recordkeeping requirements of Rules 4451 and 4452. [District Rules 4451 and 4452] Federally Enforceable Through Title V Permit
9. Corrective steps shall be taken at any time the operator observes excess drainage at disconnect of loading rack #13. In addition, the operator shall perform and record the results of quarterly drainage inspections at disconnect for loading rack #13. If no excess drainage is found during five consecutive quarterly inspections, the drainage inspection frequency may be changed from quarterly to annual. However, if one or more excess drainage condition is found during an annual inspection, the inspection frequency shall change back to quarterly. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. Compliance shall be demonstrated by collecting all drainage at disconnect in a spouted container. The drainage shall be transferred to a graduated cylinder and the volume determined within one (1) minute of collection. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
11. The permittee shall maintain an inspection log containing at least the following: A) dates of drainage inspections, B) findings, C) corrective action (including date each excess drainage condition repaired), and D) inspector name and signature. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
12. Operator shall maintain all records of required monitoring data and support information for inspection for a period of five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

13. Permittee shall maintain accurate daily records of liquid types, TVP, throughput, and number of dry-break coupler disconnects for loading rack #13, and shall make such records readily available for District inspection for a period of at least five years. [District Rule 2520, 9.4.2 and 9.5.2] Federally Enforceable Through Title V Permit
14. The operator shall maintain accurate daily records of liquid throughput, loading temperature and liquid TVP to verify continued exemption from District Rule 4624 (Amended December 17, 1992). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-36-102-1

EXPIRATION DATE: 08/31/2006

SECTION: 24 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:

ASPHALT TRUCK LOADING RACK #4 AND LOADING ARMS #10 AND #11

PERMIT UNIT REQUIREMENTS

1. True vapor pressure of any organic liquid being loaded shall be less than 1.5 psia at actual loading temperature.
[District Rule 4624, 4.3 and 2010] Federally Enforceable Through Title V Permit
2. The operator shall maintain accurate daily records of liquid throughput, loading temperature and liquid TVP to verify continued exemption from District Rule 4624 (Amended December 17, 1992). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-36-103-1

EXPIRATION DATE: 08/31/2006

SECTION: 24 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:
RAILCAR LOADOUT

PERMIT UNIT REQUIREMENTS

1. True vapor pressure of any organic liquid being loaded shall be less than 1.5 psia at actual loading temperature. [District Rule 4624, 4.3 and 2010] Federally Enforceable Through Title V Permit
2. The operator shall maintain accurate daily records of liquid throughput, loading temperature and liquid TVP to verify continued exemption from District Rule 4624 (Amended December 17, 1992). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-36-104-2

EXPIRATION DATE: 08/31/2006

SECTION: 24 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:

37,000 BBL DISTILLATE OIL TANK 37001 WITH NATURAL GAS BLANKET AND VAPOR COLLECTION SYSTEM
CONNECTED TO PERMIT UNIT S-36-51

PERMIT UNIT REQUIREMENTS

1. True Vapor Pressure of material stored shall not exceed 0.5 psia at storage temperature. [District NSR Rule] Federally Enforceable Through Title V Permit
2. Tank vapors shall only vent to vapor collection system tied in with permit unit S-36-51. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Liquid throughput shall not exceed 12,000 bbl per day. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Permittee shall maintain accurate daily records of tank liquid throughput and shall make such records readily available for District inspection for a period of at least five years. [District NSR Rule, 1070 and 2520, 9.5.2] Federally Enforceable Through Title V Permit
5. Operator shall maintain records, kept for the life of the source, showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. [40 CFR 60.116b(a)] Federally Enforceable Through Title V Permit
6. The operator shall notify the APCO within 30 days of any occurrence in which the maximum true vapor pressure of the liquid stored exceeds the true vapor pressure limitations specified in this permit. [40 CFR 60.116b(d)] Federally Enforceable Through Title V Permit
7. Maximum true vapor pressure, for crude oil or refined petroleum products, may be determined from nomographs contained in API Bulletin 2517, by using the typical Reid vapor pressure and the maximum expected storage temperature of the stored product, unless the APCO specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s). [40 CFR 60.116b(e)(2)(i)] Federally Enforceable Through Title V Permit
8. For vessels operated above or below ambient temperatures, the maximum true vapor pressure is calculated based upon the highest expected calendar-month average of the storage temperature. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service. [40 CFR 60.116b(e)(1)] Federally Enforceable Through Title V Permit
9. Operator shall determine the true vapor pressure of each VOL, other than crude oil or refined petroleum products, from standard reference texts, by ASTM Method D2879, or by using an appropriate method approved by the EPA. [40 CFR 60.116b(e)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: SAN JOAQUIN REFINING COMPANY

Location: STANDARD AND SHELL ST, BAKERSFIELD, CA 93308

S-36-104-2 Apr 12 2011 9:13AM -- SIONGCOJ

10. The operator shall determine the true vapor pressure of the petroleum liquid stored in the tank at least once per year in accordance with methods described in 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 12/17/92). Determinations shall be made annually during the summer and whenever there is a change in the source or type of petroleum entering the tank. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
11. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of API gravity of petroleum liquids stored in this unit to determine which oils are from a common source. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-36-105-1

EXPIRATION DATE: 08/31/2006

EQUIPMENT DESCRIPTION:

187 BHP CATERPILLAR (MODEL #3208, SERIAL #90N76237) EMERGENCY DIESEL FIRED IC ENGINE DRIVING A FIRE PUMP

PERMIT UNIT REQUIREMENTS

1. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
2. Emissions shall not exceed 6.6 g NOx/hp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. Operation of the engine for maintenance and testing purposes shall not exceed 200 hours per year. [District NSR Rule] Federally Enforceable Through Title V Permit
4. The sulfur content of the diesel fuel used shall not exceed 0.05% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
5. The permittee shall maintain records of hours of emergency and non-emergency operation and of the sulfur content of the diesel fuel used. Such records shall be made available for District inspection upon request for a period of five years. [District Rule 1070 and 2520, 9.5.2] Federally Enforceable Through Title V Permit
6. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration at the point of discharge. [District Rule 4201 and Kern County Rule 404] Federally Enforceable Through Title V Permit
7. The operator of an internal combustion (IC) engine shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit
8. If the IC engine is fired on Air Resources Board regulated diesel fuel, with a supplier certified sulfur content less than 0.05% by weight, the operator shall maintain copies of all fuel invoices and supplier certifications. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-36-108-2

EXPIRATION DATE: 08/31/2006

SECTION: NE24 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:

4,200,000 GALLON WELDED INTERNAL FLOATING ROOF HEAVY CRUDE OIL STORAGE TANK #100,001 WITH MECHANICAL SHOE PRIMARY SEAL AND SECONDARY WIPER SEAL TANK

PERMIT UNIT REQUIREMENTS

1. No gap between the tank shell and the primary seal shall exceed one and one half (1-1/2) inches. [District NSR Rule] Federally Enforceable Through Title V Permit
2. The cumulative length of all gaps, between the tank shell and the primary seal, greater than one-half (1/2) inch shall not exceed ten (10) percent of the circumference of the tank. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The cumulative length of all primary seal gaps greater than one-eighth (1/8) inch shall not exceed 30 percent of the tank circumference. [District NSR Rule] Federally Enforceable Through Title V Permit
4. For the primary seal, no continuous gap greater than one-eighth (1/8) inch shall exceed ten (10) percent of the tank circumference. [District NSR Rule] Federally Enforceable Through Title V Permit
5. No gap between the tank shell and the secondary seal shall exceed one-half (1/2) inch. [District NSR Rule] Federally Enforceable Through Title V Permit
6. The cumulative length of all gaps, between the tank shell and the secondary seal, greater than one-eighth (1/8) inch shall not exceed five (5) percent of the tank circumference. [District NSR Rule] Federally Enforceable Through Title V Permit
7. The secondary seal shall allow easy insertion of probes up to one and one-half (1-1/2) inches in width in order to measure gaps in the primary seal. [District NSR Rule] Federally Enforceable Through Title V Permit
8. The secondary seal shall extend from the roof to the tank shell and shall not be attached to the primary seal. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains shall be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket, and the covers on each access hatch and automatic gauge float well shall be bolted except when they are in use. [District NSR Rule] Federally Enforceable Through Title V Permit
10. Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when roof is floating except when the roof is being floated off or is being landed on the roof leg supports. [District NSR Rule] Federally Enforceable Through Title V Permit
11. Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

12. Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening. [District NSR Rule] Federally Enforceable Through Title V Permit
13. Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve or a gasketed sliding cover. [District NSR Rule] Federally Enforceable Through Title V Permit
14. Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover. [District NSR Rule] Federally Enforceable Through Title V Permit
15. There shall be no holes, tears or openings in either the primary or secondary seals which allow the uncontrolled emission of volatile organic compounds. [District NSR Rule] Federally Enforceable Through Title V Permit
16. True vapor pressure of liquid stored shall not exceed 0.5 psia. [District NSR Rule] Federally Enforceable Through Title V Permit
17. Temperature of liquids stored in tanks shall not exceed 170 degrees F. [District NSR Rule] Federally Enforceable Through Title V Permit
18. Maximum amount of material introduced into tank shall not exceed 23,000 bbl/day, and throughput shall not exceed 4,600,128 bbl/year. [District NSR Rule] Federally Enforceable Through Title V Permit
19. Permittee shall visually inspect the internal floating roof, the primary seal, the secondary seal, gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the permittee shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years. [District NSR Rule] Federally Enforceable Through Title V Permit
20. Permittee shall keep accurate records of the true vapor pressure, storage temperature and types of liquids stored, amount of liquid introduced daily into the tank and annual throughput, for a period of five years, and shall make such records readily available for District inspection upon request. [District NSR Rule & Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
21. Records shall be kept of each inspection performed. Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings). [District NSR Rule] Federally Enforceable Through Title V Permit
22. Operator shall keep a record of liquids stored in tank, period of storage, storage temperature, and the maximum true vapor pressure of such liquids. [District NSR Rule] Federally Enforceable Through Title V Permit
23. As used in this permit, the term "type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of API gravity of petroleum liquids stored in this unit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
24. The operator shall determine the true vapor pressure of the petroleum liquid stored in the tank at least once per year in accordance with method described in section 6.2 of District Rule 4623 (amended 12/20/01). Determinations shall be made annually during the summer and whenever there is a change in the source or type of petroleum entering the tank. [District NSR Rule] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-36-109-0

EXPIRATION DATE: 08/31/2006

SECTION: 23 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:

HEAVY OIL HYDROFINISHER UNIT INCLUDING HEAT EXCHANGERS, TWO REACTORS, VESSELS, STRIPPER COLUMN, VACUUM DRYER COLUMN, AND TWO STEAM JET EDUCTORS

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. All equipment shall be constructed, maintained and operated according to the specifications and plans contained in the permit application except as otherwise specified herein. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Equipment includes reactor effluent cooler EA-1201, stripper condenser EA-1202, dry product air cooler EA-1203, HVGO booster pumps P-1201 A/B, extract booster pumps P-1202 A/B, charge pumps P-1203 A/B, stripper reflux pump P-1204 A/B, accumulator sour water pump P-1205 A/B, dryer condensate pumps P-1206 A/B, dryer bottoms pumps P-1207 A/B. [District Rule 2010] Federally Enforceable Through Title V Permit
4. Equipment includes first reactor R-1201, second reactor R-1202, hot separator vessel B-1201, cold separator vessel B-1202, stripper accumulator vessel B-1203, dryer condensate drum B-1204, and steam knockout vessel B-1206. [District Rule 2010] Federally Enforceable Through Title V Permit
5. Equipment includes first stripper tower F-1201, vacuum dryer tower F-1202, feed filter A-1201, spray nozzle A-1202, evacuation ejector S-1201, and vacuum jet S-1202. [District Rule 2010] Federally Enforceable Through Title V Permit
6. All gases shall be sent to sulfur recovery unit (S-36-51) except during plant shutdown or breakdown conditions pursuant to Rule 1100 when it shall be burned in the flare (S-36-51). [District NSR Rule] Federally Enforceable Through Title V Permit
7. Vacuum ejector off gas from the vacuum ejector condensate drum B-1207 will be sent to the inlet of the sulfur recovery unit (S-36-51) or to the inlet of the thermal oxidizer (S-36-51) when the H₂S concentration is less than 10 ppm. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Leaking components, in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21, shall not exceed 2 components from the heavy oil hydrofinisher unit. No leaking pressure relief valves are allowed. [District NSR Rule] Federally Enforceable Through Title V Permit
9. VOC emissions from fugitive emissions sources in this permit unit shall not exceed 38.1 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
10. Valves and connectors shall not leak in excess of 100 ppmv above background as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21 and must be repaired in a manner consistent with Rule 4451 (as amended December 17, 1992). [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

11. Pump and compressor seals shall not leak in excess of 500 ppmv above background as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21 and must be repaired in a manner consistent with Rule 4452 (as amended December 17, 1992). [District NSR Rule] Federally Enforceable Through Title V Permit
12. Permittee shall maintain accurate records of number of fugitive emissions components and calculated emissions using California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2a "1995 EPA Protocol Refinery Screening Value Ranges Emission Factors". [District NSR Rule and District Rule 1070] Federally Enforceable Through Title V Permit
13. Permittee shall comply with all applicable notification, reporting, recordkeeping, testing, and maintenance requirements of Rule 4001 (40 CFR 60; subparts GGG and QQQ). [District Rule 4001] Federally Enforceable Through Title V Permit
14. Permittee shall comply with all applicable inspection, maintenance, testing, and recordkeeping requirements of Rules 4451 (as amended December 17, 1992) and 4452 (as amended December 17, 1992). [District Rules 4451 and 4452] Federally Enforceable Through Title V Permit
15. Permittee shall comply with the requirements of Rules 4453 and 4454. [District Rules 4453 and 4454 and Kern County Rules 414.2 and 414.3] Federally Enforceable Through Title V Permit
16. All records required by this permit shall be made available for District inspection upon request for a period of five years. [District Rules 1070 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
17. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 1070 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

ATTACHMENT C

District Rule 4311 Stringency Analysis

Comparison of the latest amended version (amended June 18, 2009) of District Rule 4311 and the current SIP approved version, adopted June 20, 2002

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
APPLICABILITY		
This rule is applicable to operations involving the use of flares.	X	X
DEFINITIONS		
Air-Assisted Flare: a combustion device where forced air is injected to promote turbulence for mixing and to provide combustion air.	X	X
Air Pollution Control Officer (APCO): as defined in Rule 1020 (Definitions).		X
Air Resources Board (ARB): as defined in Rule 1020 (Definitions).		X
British Thermal Unit (Btu): the amount of heat required to raise the temperature of one pound of water from 59 °F to 60 °F at one atmosphere.		X
Calendar Day: any day starting at twelve o'clock AM and ending at 11:59 PM.		X
Coanda Effect Flare: A flare in which the high pressure flare gas flows along a curved surface <input type="checkbox"/> nspiring air into the gas to promote combustion.		X
Emergency: any situation or a condition arising from a sudden and reasonably unforeseeable event beyond the control of the operator. An emergency situation requires immediate corrective action to restore safe operation. A planned flaring event shall not be considered as an emergency.	X	
Emergency: any situation or a condition arising from a sudden and reasonably unforeseeable and unpreventable event beyond the control of the operator. Examples include, but are not limited to, not preventable equipment failure, natural disaster, act of war or terrorism, or external power curtailment, excluding a power curtailment due to an interruptible power service agreement from a utility. A flaring event due to improperly designed equipment, lack of preventative maintenance, careless or improper operation, operator error or willful misconduct does not qualify as an emergency. An emergency situation requires immediate corrective action to restore safe operation. A planned flaring event shall not be considered as an emergency.		X
Enclosed Flare: a flare composed of multiple gas burners that are grouped in an enclosure, and are staged to operate at a	X	X

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
wide range of flow rates.		
EPA: United States Environmental Protection Agency.		X
Feasible: Capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.		X
Flare: a direct combustion device in which air and all combustible gases react at the burner with the objective of complete and instantaneous oxidation of the combustible gases. Flares are used either continuously or intermittently and are not equipped with devices for fuel-air mix control or for temperature control.	X	X
Flare Event: any intentional or unintentional combustion of vent gas in a flare. The flare event ends when the flow velocity drops below 0.12 feet per second or when the operator can demonstrate that no more vent gas was combusted based upon the monitoring records of the flare water seal level and/or other parameters as approved by the APCO in the Flare Monitoring and Recording Plan. For a flare event that continues for more than one calendar day, each calendar day or venting of gases shall constitute a separate flare event.		X
Flare Gas: gas burned in a flare.	X	X
Flare Minimization Plan (FMP): a document intended to meet the requirements of Section 6.5 of this Rule.		X
Flare Monitoring System: all flare monitoring and recording equipment used for the determination of flare operating parameters. Flare monitoring and recording equipment includes, but is not limited to, sample systems, transducers, transmitters, data acquisition equipment, data recording equipment, and video monitoring equipment and video recording equipment.		X
Flexigas: a low BTU fuel gas produced by gasifying coke produced in a fluid-bed Coker. Due to the air used in the gasifying process, Flexigas is approximately 50% nitrogen.		X
Gaseous Fuel: any gases used as combustion fuel which include, but are not limited to, any natural, process, synthetic, landfill, sewage digester, or waste gases. Gaseous fuels include produced gas, pilot gas and, when burned, purge gas.	X	X
Major Source: as defined in Rule 2201 (New and Modified Stationary Source Review Rule).	X	
MMBtu: million British thermal units.		X

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
Non-Assisted Flare: a combustion device without any auxiliary provision for enhancing the mixing of air into its flame. This definition does not include those flares, that by design, provide excess air at the flare tip.	X	X
Nox: any nitrogen oxide compounds	X	X
Open Flare: a vertically or horizontally oriented open pipe flare from which gases are released into the air before combustion is commenced.	X	X
Operator: includes, but not limited to, any person who owns, leases, supervises, or operates a facility.		X
Petroleum Refinery: a facility that processes petroleum, as defined in the Standard Industrial Classification Manual as Industry No. 2911, Petroleum Refining. For the purpose of this rule, all portions of the petroleum refining operation, including those at non-contiguous locations operating flares, shall be considered as one petroleum refinery.		X
Pilot: an auxiliary burner used to ignite the vent gas routed to a flare.		X
Pilot Gas: the gas used to maintain the presence of a flame for ignition of vent gases.		X
<p>Planned Flaring: a flaring operation that constitutes a designed and planned process at a source, and which would have been reasonably foreseen ahead of its actual occurrence, or is scheduled to occur. The operation of a flare for the purpose of performing equipment maintenance provided it does not exceed 200 hours per calendar year, or during compliance source testing or visible emission inspections is not considered planned flaring. Planned flaring includes, but is not limited to, the following flaring activities:</p> <p>Oil or gas well tests, well related work, tests ordered by a regulatory agency.</p> <p>Equipment depressurization for maintenance purposes.</p> <p>Equipment start-up or shutdown.</p> <p>Flaring of gas at production sources where no gas handling, gas injection or gas transmission facilities exists.</p> <p>Flaring of off-specification gas (i.e. non PUC quality gas), unless the operator can demonstrate that the gas must be flared for engineering or safety reasons, e.g., under emergency.</p>	X	
Planned Flaring: a flaring operation that constitutes a		X

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
<p>designed and planned process at a source, and which would have been reasonably foreseen ahead of its actual occurrence, or is scheduled to occur. Planned flaring includes, but is not limited to, the following flaring activities:</p> <p>Oil or gas well tests, well related work, tests ordered by a regulatory agency.</p> <p>Equipment depressurization for maintenance purposes.</p> <p>Equipment start-up or shutdown.</p> <p>Flaring of gas at production sources where no gas handling, gas injection or gas transmission facilities exists.</p> <p>Flaring of off-specification gas (i.e. non-PUC quality gas), unless the operator can demonstrate that the gas must be flared for engineering or safety reasons, e.g., under emergency.</p> <p>The operation of a flare for the purpose of performing equipment maintenance.</p>		
Prevention Measure: a component, system, procedure, or program that will minimize or eliminate flaring.		X
Public Utilities Commission (PUC) Quality Gas: any gaseous fuel, gas containing fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet and no more than five grains of total sulfur per one hundred (100) standard cubic feet. PUC quality gas shall also mean high methane (at least 80 % by volume) gas as specified in PUC's General Order 58-A.	X	X
Purge Gas: Nitrogen, carbon dioxide, liquefied petroleum gas, or natural gas, any of which can be used to maintain a non-explosive mixture of gases in the flare header or provide sufficient exit velocity to prevent any regressive flame travel back into the flare header.	X	X
Refinery Fuel Gas: a combustible gas, which is a by-product of the refinery process.		X
Reportable Flaring Event: any flaring where more than 500,000 standard cubic feet of vent gas is flared per calendar day, or where sulfur oxide emissions are greater than 500 pounds per calendar day. A reportable flaring event ends when it can be demonstrated by monitoring required in Section 6.8 that the integrity of the water seal has been maintained sufficiently to prevent vent gas to the flare tip. For flares without water seals or water seal monitors as required by Section 6.8, a reportable flaring event ends when the rate of flow of vent gas falls below 0.12 feet per second.		X

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
Representative Sample: a sample of vent gas collected from the location as approved for flare monitoring and analyzed utilizing test methods specified in Section 6.3.4.		X
Shutdown: the procedure by which the operation of a process unit or piece of equipment is stopped due to the end of a production run, or for the purpose of performing maintenance, repair and replacement of equipment. Stoppage caused by frequent breakdown due to poor maintenance or operator error shall not be deemed a shutdown.		X
Startup: the procedure by which a process unit or piece of equipment achieves normal operational status, as indicated by such parameters as temperature, pressure, feed rate and product quality.		X
Steam-Assisted Flare: a combustion device where steam is injected into the combustion zone to promote turbulence for the mixing of the combustion air before it is introduced to the flame.		X
Thermal oxidizer: an enclosed or partially enclosed combustion device, other than a flare, that is used to oxidize combustible gases.		X
Total Organic Gases (TOG): all hydrocarbon compounds containing hydrogen and carbon with or without other chemical elements.	X	X
Turnaround: a planned activity involving shutdown and startup of one or several process units for the purpose of performing periodic maintenance, repair, replacement of equipment or installation of new equipment.		X
Vent Gas: any gas directed into a flare, excluding assisting air or steam, flare pilot gas, and any continuous purge gases.		X
Volatile Organic Compound (VOC): as defined in Rule 1020 (Definitions).	X	X
Water Seal: a liquid barrier, or seal, to prevent the passage of gas. Water seals provide a positive means of flash-back prevention in addition to enabling the upstream flare system header to operate at a slight positive pressure at all times.		X
EXEMPTIONS		
Flares operated in municipal solid waste landfills subject to the requirements of Rule 4642 (Solid Waste Disposal Sites) are exempt from this rule.	X	X
Flares that are subject to the requirements of 40 CFR 60 Subpart WWW (Standards of Performance for Municipal		

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
Waste Landfills), or Subpart Cc (Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills) are exempt from this rule.		
Except for the recordkeeping requirements in Section 6.1.4 the requirements of this rule shall not apply to any stationary source that has the potential to emit, for all processes, less than ten (10.0) tons per year of VOC and less than ten (10.0) tons per year of Nox.		X
REQUIREMENTS		
<p>The operator of any source subject to this rule shall comply with the following requirements:</p> <p>Flares that are permitted to operate only during an emergency are not subject to the requirements of Sections 5.6 and 5.7.</p> <p>The flame shall be present at all times when combustible gases are vented through the flare.</p> <p>The outlet shall be equipped with an automatic ignition system, or, shall operate with a pilot flame present at all times when combustible gases are vented through the flare, except during purge periods for automatic-ignition equipped flares.</p>	X	X
Except for flares equipped with a flow-sensing ignition system, a heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor, <u>or an equivalent device</u> , capable of continuously detecting at least one pilot flame or the flare flame is present shall be installed and operated.	X	
Except for flares equipped with a flow-sensing ignition system, a heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor, <u>or an alternative equivalent device</u> , capable of continuously detecting at least one pilot flame or the flare flame is present shall be installed and operated.		X
Flares that use flow-sensing automatic ignition systems and which do not use a continuous flame pilot shall use purge gas for purging.	X	X
Open flares (air-assisted, steam-assisted, or non-assisted) in which the flare gas pressure is less than 5 psig shall be operated in such a manner that meets the provisions of 40 CFR 60.18.	X	
Open flares (air-assisted, steam-assisted, or non-assisted) in which the flare gas pressure is less than 5 psig shall be operated in such a manner that meets the		X

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
provisions of 40 CFR 60.18. The requirements of this section shall not apply to Coanda effect flares.		
<p>Ground-level enclosed flares shall meet the following emission standards:</p> <p><u>Flares without Steam Assist</u></p> <p>Heat Release Rate: <10 MMBtu VOC limit = 0.0051 (lb/MMBtu) Nox limit = 0.0952 (lb/MMBtu)</p> <p>Heat Release Rate: 10-100 MMBtu VOC limit = 0.0027 (lb/MMBtu) Nox limit = 0.1330 (lb/MMBtu)</p> <p>Heat Release Rate: >100 MMBtu VOC limit = 0.0013 (lb/MMBtu) Nox limit = 0.5240 (lb/MMBtu)</p> <p><u>Flares with Steam Assist</u></p> <p>All Heat Release Rates VOC limit = 0.0014 (lb/MMBtu) as TOG Nox limit = 0.068 (lb/MMBtu)</p>	X	X
<p><u>Flare Minimization Plan</u></p> <p>Effective on and after July 1, 2011, flaring is prohibited unless it is consistent with an approved flare minimization plan (FMP), pursuant to Section 6.5, and all commitments listed in that plan have been met. This standard shall not apply if the APCO determines that the flaring is caused by an emergency as defined by Section 3.7 and is necessary to prevent an accident, hazard or release of vent gas directly to the atmosphere.</p>		X
<p><u>Petroleum Refinery SO₂ Performance Targets</u></p> <p>Effective on and after January 1, 2011, the operator of a petroleum refinery shall minimize sulfur dioxide flare emissions to less than 1.50 tons per million barrels of crude processing capacity, calculated as an average over one calendar year.</p> <p>Effective on and after January 1, 2017, the operator of a petroleum refinery shall minimize sulfur dioxide flare emissions to less than 0.50 tons per million barrels of crude processing capacity, calculated as an average over one calendar year.</p>		X
<p>Effective on and after July 1, 2011, the operator of a flare subject to flare minimization requirements pursuant to Section 5.8 shall monitor the vent gas flow to the flare with a flow measuring device or other parameters as specified in the Permit to Operate. The operator shall maintain records</p>		X

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
pursuant to Section 6.1.7. Flares that the operator can verify, based on permit conditions, are not capable of producing reportable flare events pursuant to Section 6.2.2 shall not be required to monitor vent gas flow to the flare.		
Effective on and after July 1, 2011, the operator of a petroleum refinery or a flare with a flaring capacity equal to or greater than 50 MMBtu/hr shall monitor the flare pursuant to Sections 6.6, 6.7, 6.8, 6.9, and 6.10.		X
ADMINISTRATIVE REQUIREMENTS		
<u>Compliance Determination</u> Upon request the operator of flares that are subject to Section 5.6 shall make available to the APCO the compliance determination records that demonstrate compliance with the provisions of 40 CFR 60.18, (c)(3) through (c)(5). The operator of ground-level enclosed flares shall conduct source testing at least once every 12 months to demonstrate compliance with Section 5.7. The operator shall submit a copy of the testing protocol to the APCO at least 30 days in advance of the scheduled testing. The operator shall submit the source test results not later than 45 days after completion of the source testing. For flares used during an emergency, record of the duration of flare operation, amount of gas burned, and the nature of the emergency situation.	X	X
Operators claiming an exemption pursuant to Section 4.3 shall record annual throughput, material usage, or other information necessary to demonstrate an exemption under that section. Effective on and after July 1, 2011, a copy of the approved flare minimization plan pursuant to Section 6.5. Effective on and after July 1, 2012, where applicable, a copy of annual reports submitted to the APCO pursuant to Section 6.2. Effective on and after July 1, 2011, where applicable, monitoring data collected pursuant to Sections 5.10, 6.6, 6.7, 6.8, 6.9, and 6.10.		X

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
<p><u>Flare Reporting</u></p> <p>Unplanned Flaring Event</p> <p>Effective on and after July 1, 2011, the operator of a flare subject to flare minimization plans pursuant to Section 5.8 of this rule shall notify the APCO of an unplanned flaring event within 24 hours after the start of the next business day or within 24 hours of their discovery, which ever occurs first. The notification shall include the flare source identification, the start date and time, and the end date and time.</p> <p>Reportable Flaring Event</p> <p>Effective on and after July 1, 2012, and annually thereafter, the operator of a flare subject to flare minimization plans pursuant to Section 5.8 shall submit an annual report to the APCO that summarizes all Reportable Flaring Events as defined in Section 3.0 that occurred during the previous 12 month period. The report shall be submitted within 30 days following the end of the twelve month period of the previous year. The report shall include, but is not limited to all of the following:</p> <p style="padding-left: 40px;">The results of an investigation to determine the primary cause and contributing factors of the flaring event;</p> <p style="padding-left: 40px;">Any prevention measures considered or implemented to prevent recurrence together with a justification for rejecting any measures that were considered but not implemented;</p> <p style="padding-left: 40px;">If appropriate, an explanation of why the flaring was an emergency and necessary to prevent accident, hazard or release of vent gas to the atmosphere, or where, due to a regulatory mandate to vent a flare, it cannot be recovered, treated and used as a fuel gas at the facility; and</p> <p style="padding-left: 40px;">The date, time, and duration of the flaring event.</p>		X
<p>Annual Monitoring Report</p> <p>Effective on and after July 1, 2012, and annually thereafter, the operator of a flare subject to flare monitoring requirements pursuant to Sections 5.10, 6.6, 6.7, 6.8, 6.9, and 6.10, as appropriate, shall submit an annual report to the APCO within 30 days following the end of each 12 month period. The report shall include the following:</p> <p style="padding-left: 40px;">The total volumetric flow of vent gas in standard cubic feet for each day.</p> <p style="padding-left: 40px;">Hydrogen sulfide content, methane content, and hydrocarbon content of vent gas composition pursuant to</p>		X

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
<p>Section 6.6.</p> <p>If vent gas composition is monitored by a continuous analyzer or analyzers pursuant to Section 5.11, average total hydrocarbon content by volume, average methane content by volume, and depending upon the analytical method used pursuant to Section 6.3.4, total reduced sulfur content by volume or hydrogen sulfide content by volume of vent gas flared for each hour of the month.</p> <p>If the flow monitor used pursuant to Section 5.10 measures molecular weight, the average molecular weight for each hour of each month.</p> <p>For any pilot and purge gas used, the type of gas used, the volumetric flow for each day and for each month, and the means used to determine flow.</p> <p>Flare monitoring system downtime periods, including dates and times.</p> <p>For each day and for each month provide calculated sulfur dioxide emissions.</p> <p>A flow verification report for each flare subject to this rule. The flow verification report shall include flow verification testing pursuant to Section 6.3.5.</p>		
<p><u>Test Methods</u></p> <p>The test methods listed below shall be used to demonstrate compliance with this rule. Alternate equivalent test methods may be used provided the test methods have been approved by the APCO and EPA.</p> <p>VOC, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case Method 25a may be used, and analysis of halogenated exempt compounds shall be analyzed by EPA Method 18 or ARB Method 422 "Determination of Volatile organic Compounds in Emission from Stationary Sources". The VOC concentration in ppmv shall be converted to pounds per million Btu (lb/MMBtu) by using the following equation:</p> $\text{VOC in lb/MMBtu} = \frac{(\text{ppmv dry}) \times (F, \text{dscf} / \text{MMBtu})}{(1.135 \times 10^6) \times (20.9 - \%O_2)}$ <p>Where: F = As determined by EPA Method 19</p> <p>NOx emissions in pounds per million BTU shall be determined by using EPA Method 19.</p> <p>NOx and O₂ concentrations shall be determined by using EPA Method 3A, EPA Method 7E, or ARB 100.</p>	<p style="text-align: center;">X</p>	<p style="text-align: center;">X</p>

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
<p>Testing and Sampling Methods for Flare Monitoring</p> <p>Effective on and after July 1, 2011 operators subject to vent gas composition monitoring requirements pursuant to Section 6.6 shall use the following test methods as appropriate, or by an alternative method approved by the APCO, ARB and EPA:</p> <p>Total hydrocarbon content and methane content of vent gas shall be determined using ASTM Method D 1945-96, ASTM Method UOP 539-97, EPA Method 18, or EPA Method 25A or 25B,</p> <p>Hydrogen sulfide content of vent gas shall be determined using ASTM Method D 1945-96, ASTM Method UOP 539-97, ASTM Method D 4084-94, or ASTM Method D 4810-88.</p> <p>If vent gas composition is monitored with a continuous analyzer employing gas chromatography the minimum sampling frequency shall be one sample every 30 minutes.</p> <p>If vent gas composition is monitored using continuous analyzers not employing gas chromatography, the total reduced sulfur content of vent gas shall be determined by using EPA Method D4468-85.</p>		X
<p>Flow Verification Test Methods</p> <p>For purposes of the flow verification report required by Section 6.2.3.8, vent gas flow shall be determined using one or more of the following methods, or by any alternative method approved by the APCO, ARB, and EPA:</p> <p>EPA Methods 1 and 2;</p> <p>A verification method recommended by the manufacturer of the flow monitoring equipment installed pursuant to Section 5.10.</p> <p>Tracer gas dilution or velocity.</p> <p>Other flow monitors or process monitors that can provide comparison data on a vent stream that is being directed past the ultrasonic flow meter.</p>		X
<p><u>Flare Minimization Plan</u></p> <p>By July 1, 2010, the operator of a petroleum refinery flare or any flare that has a flaring capacity of greater than or equal to 5.0 MMBtu per hour shall submit a flare minimization plan (FMP) to the APCO for approval. The FMP shall include, but not be limited to:</p>		X

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
<p>A description and technical specifications for each flare and associated knock-out pots, surge drums, water seals and flare gas recovery systems.</p> <p>Detailed process flow diagrams of all upstream equipment and process units venting to each flare, identifying the type and location of all control equipment.</p> <p>A description of equipment, processes, or procedures the operator plans to install or implement to eliminate or minimize flaring and planned date of installation or implementation.</p> <p>An evaluation of prevention measures to reduce flaring that has occurred or may be expected to occur during planned major maintenance activities, including startup and shutdown.</p> <p>An evaluation of preventative measures to reduce flaring that may be expected to occur due to issues of gas quantity and quality. The evaluation shall include an audit of the vent gas recovery capacity of each flare system, the storage capacity available for excess vent gases, and the scrubbing capacity available for vent gases including any limitations associated with scrubbing vent gases for use as a fuel; and shall determine the feasibility of reducing flaring through the recovery, treatment and use of the gas or other means.</p> <p>An evaluation of preventative measures to reduce flaring caused by the recurrent failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. The evaluation shall determine the adequacy of existing maintenance schedules and protocols for such equipment. For purposes of this section, a failure is recurrent if it occurs more than twice during any five year period as a result of the same cause as identified in accordance with Section 6.2.2.</p> <p>Any other information requested by the APCO as necessary for determination of compliance with applicable provisions of this rule.</p> <p>Every five years after the initial FMP submittal, the operator shall submit an updated FMP for each flare to the APCO for approval. The current FMP shall remain in effect until the updated FMP is approved by the APCO. If the operator fails to submit an updated FMP as required by this section, the existing FMP shall no longer be considered an approved plan.</p> <p>An updated FMP shall be submitted by the operator pursuant to Section 6.5 addressing new or modified equipment, prior to installing the equipment. Updated</p>		

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
<p>FMP submittals are only required if:</p> <p>The equipment change would require an authority to construct (ATC) and would impact the emissions from the flare, and</p> <p>The ATC is deemed complete after June 18, 2009, and</p> <p>The modification is not solely the removal or decommissioning of equipment that is listed in the FMP, and has no associated increase in flare emissions.</p> <p>When submitting the initial FMP, or updated FMP, the operator shall designate as confidential any information claimed to be exempt from public disclosure under the California Public Records Act, Government Code Section 6250 et seq. If a document is submitted that contains information designated confidential, the operator shall provide a justification for this designation and shall submit a separate copy of the document with the information designated confidential redacted.</p>		
<p><u>Vent Gas Composition Monitoring</u></p> <p>Effective on and after July 1, 2011, the operator of a petroleum refinery flare or any flare that has a flaring capacity equal to or greater than 50 MMBtu per hour shall monitor vent gas composition using one of the five methods pursuant to Section 6.6.1 through Section 6.6.5 as appropriate.</p> <p>Sampling that meets the following requirements:</p> <p>If the flow rate of vent gas flared in any consecutive 15-minute period continuously exceeds 330 standard cubic feet per minute (SCFM), a sample shall be taken within 15 minutes. The sampling frequency thereafter shall be one sample every three hours and shall continue until the flow rate of vent gas flared in any consecutive 15-minute period is continuously 330 SCFM or less. In no case shall a sample be required more frequently than once every 3 hours.</p> <p>Samples shall be analyzed pursuant to Section 6.3.4.</p> <p>Integrated sampling that meets the following requirements:</p> <p>If the flow rate of vent gas flared in any consecutive 15 minute period continuously exceeds 330 SCFM, integrated sampling shall begin within 15 minutes and shall continue until the flow rate of vent gas flared in any consecutive 15 minute period is continuously 330 SCFM or less.</p> <p>Integrated sampling shall consist of a minimum of one aliquot for each 15-minute period until the sample</p>		<p>X</p>

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
<p>container is full. If sampling is still required pursuant to Section 6.6.2.1, a new sample container shall be placed in service within one hour after the previous sample was filled. A sample container shall not be used for a sampling period that exceeds 24 hours.</p> <p>Samples shall be analyzed pursuant to Section 6.3.4.</p> <p>Continuous analyzers that meet the following requirements:</p> <p>The analyzers shall continuously monitor for total hydrocarbon methane, and depending upon the analytical method used pursuant to Section 6.3.4, hydrogen sulfide or total reduced sulfur.</p> <p>The hydrocarbon analyzer shall have a full-scale range of 100% total hydrocarbon.</p> <p>Each analyzer shall be maintained to be accurate to within 20% when compared to any field accuracy tests or to within 5% of full scale.</p> <p>Continuous analyzers employing gas chromatography that meet the following requirements:</p> <p>The gas chromatography system shall monitor for total hydrocarbon, methane, and hydrogen sulfide.</p> <p>The gas chromatography system shall be maintained to be accurate within 5% of full scale.</p> <p>Monitor sulfur content using a colorimetric tube system on a daily basis, and monitor vent gas hydrocarbon on a weekly basis by collecting samples and having them tested pursuant to a method in Section 6.3.4.</p> <p>If flares share a common header, a sample from the header will be deemed representative of vent gas composition for all flares served by the header.</p> <p>The operator shall provide the APCO with access to the monitoring system to collect vent gas samples to verify the analysis required by Section 5.11.</p> <p><u>Pilot and Purge Gas Monitoring</u></p> <p>Effective on and after July 1, 2011, the operator of a petroleum refinery flare or any flare that has a flaring capacity equal to or greater than 50 MMBtu per hour shall monitor the volumetric flows of purge and pilot gases with flow measuring devices or other parameters as specified on the Permit to Operate so that volumetric flows of pilot and purge gas may be calculated based on pilot design and the parameters monitored.</p> <p><u>Water Seal Monitoring</u></p> <p>Effective on and after July 1, 2011, the operator of a</p>		

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
<p>petroleum refinery flare or any flare that has a flaring capacity equal to or greater than 50 MMBtu per hour with a water seal shall monitor and record the water level and pressure of the water seal that services each flare daily or as specified on the Permit to Operate.</p> <p><u>General Monitoring</u></p> <p>Effective on and after July 1, 2011, the operator of a petroleum refinery flare or any flare that has a flaring capacity equal to or greater than 50 MMBtu per hour shall comply with the following, as applicable:</p> <p>Periods of flare monitoring system inoperation greater than 24 continuous hours shall be reported by the following working day, followed by notification of resumption of monitoring. Periods of inoperation of monitoring equipment shall not exceed 14 days per any 18-consecutive-month period. Periods of flare monitoring system inoperation do not include the periods when the system feeding the flare is not operating.</p> <p>During periods of inoperation of continuous analyzers or auto-samplers installed pursuant to Section 6.6, operators responsible for monitoring shall take one sample within 30 minutes of the commencement of flaring, from the flare header or from an alternate location at which samples are representative of vent gas composition and have samples analyzed pursuant to Section 6.3.4. During periods of inoperation of flow monitors required by Section 5.10, flow shall be calculated using good engineering practices.</p> <p>Maintain and calibrate all required monitors and recording devices in accordance with the applicable manufacturer's specifications. In order to claim that a manufacturer's specification is not applicable, the person responsible for emissions must have, and follow, a written maintenance policy that was developed for the device in question. The written policy must explain and justify the difference between the written procedure and the manufacturer's procedure.</p> <p>All in-line continuous analyzer and flow monitoring data must be continuously recorded by an electronic data acquisition system capable of one-minute averages. Flow monitoring data shall be recorded as one-minute averages.</p> <p><u>Video Monitoring</u></p> <p>Effective on and after July 1, 2011, the operator of a petroleum refinery flare shall install and maintain equipment that records a real-time digital image of the flare and flame at a frame rate of no less than one frame per minute. The recorded image of the flare shall be of sufficient size, contrast,</p>		

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
<p>and resolution to be readily apparent in the overall image or frame. The image shall include an embedded date and time stamp. The equipment shall archive the images for each 24-hour period. In lieu of video monitoring the operator may use an alternative monitoring method that provides data to verify date, time, vent gas flow, and duration of flaring events.</p>		

ATTACHMENT D

District Rule 4601 Stringency Analysis

Stringency Comparison of District Rule 4601 Non-SIP Version (12/17/09) to Current SIP Version (10/31/01)

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
2.0 Applicability	This rule is applicable to any person who supplies, sells, offers for sale, applies, or solicits the application of any architectural coating, or who manufactures any architectural coating for use within the District.	This rule is applicable to any person who supplies, sells, offers for sale, applies, or solicits the application of any architectural coating, or who manufactures, blends or repackages any architectural coating for use within the District.	No change in the applicability, therefore, non-SIP version of rule is as stringent as SIP version.
4.0 Exemptions	The provisions of this rule shall not apply to: 4.1 Any architectural coating that is sold or manufactured for use outside of the District or for shipment to other manufacturers for reformulation or repackaging. 4.2 Any architectural coating that is sold in a containers with a volume of one liter (1.057 quarts) or less. 4.3 Any aerosol coating product.	4.1 The provisions of this rule shall not apply to: 4.1.1 Any architectural coating that is supplied, sold, offered for sale, or manufactured for use outside of the District or for shipment to other manufacturers for reformulation or repackaging. 4.1.2 Any aerosol coating product. 4.2 With the exception of Section 6.2, the provisions of this rule shall not apply to any architectural coating that is sold in a container with a volume of one liter (1.057 quarts) or less.	The only change is to require reporting requirements as discussed in Section 6.2 of the non-SIP approved version. Therefore, the non-SIP version of the rule is more stringent than the SIP version of the rule.
5.0 Requirements	Note: Section 5.0 requirements refer to Table of Standards, Table of Standards 1, and Table of Standards 2.		
	5.1 VOC Content Limits: Except as provided in Sections 5.2, 5.3, 5.8 and 8.0, no person shall; 5.1.1 manufacture, blend, or repackage for sale within the District; 5.1.2 supply, sell, or offer for sale within the district; 5.1.3 solicit for application or apply within the District any architectural coating with a VOC content in excess of the corresponding limit specified in the Table of Standards, after the specified effective date in the Table of Standards.	5.1 VOC Content Limits: Except as provided in Sections 5.2 and 5.3, no person shall: manufacture, blend, or repackage for use within the District; or supply, sell, or offer for sale within the District; or solicit for application or apply within the District any architectural coating with a VOC content in excess of the corresponding limit specified in the Table of Standards 1 or the Table of Standards 2, after the specified effective date in the Table of Standards 1 or the Table of Standards 2. Limits are expressed as VOC Regulatory, thinned to the manufacturer's maximum thinning recommendation, excluding any colorant added to tint bases.	Sections 5.8 and 8.0 of the SIP version are not included in the non-SIP version. As discussed in corresponding sections the non-SIP version is more stringent. The Table of Standards and Table of Standards 1 have the same VOC limits. Table of Standard 2 is more stringent as discussed below. Therefore, the non-SIP version of the rule is more stringent than the SIP version of the rule.
	5.2 Most Restrictive VOC Limit: If anywhere on the container of any architectural coating, or any label or sticker affixed to the container, or in any sales, advertising, or technical literature supplied by a manufacturer or anyone acting on their behalf, any representation is made that indicates that the coating meets the definition of or is recommended for use for more than one of the coating categories listed in the Table of Standards, then the most restrictive VOC content limit shall apply. This provision does not apply to the following coating categories: 5.2.1 Lacquer coatings (including lacquer sanding sealers) 5.2.2 Metallic pigmented coatings 5.2.3 Shellacs 5.2.4 Fire-retardant coatings 5.2.5 Pretreatment wash primers 5.2.6 Industrial maintenance coatings 5.2.7 Low-solids coatings 5.2.8 Wood preservatives	5.2 Most Restrictive VOC Limit: If a coating meets the definition in Section 3.0 for one or more specialty coating categories listed in the Table of Standards 1 or the Table of Standards 2, then that coating is not required to meet the VOC limits for Flat, Nonflat, or Nonflat – High Gloss coatings, but is required to meet the VOC limit for the applicable specialty coating listed in the Table of Standards 1 or the Table of Standards 2. 5.2.1 Effective until December 31, 2010, with the exception of the specialty coating categories specified in Section 5.2.3.1 through 5.2.3.15, if a coating is recommended for use in more than one of the specialty coating categories listed in the Table of Standards 1, the most restrictive (or lowest) VOC content limit shall apply. 5.2.2 Effective on and after January 1, 2011, with the exception of the specialty coating categories	The VOC limit of the non-SIP version is at least as stringent as the SIP version. Therefore, the non-SIP version of the rule is more stringent than the SIP version of the rule.

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
	5.2.9 High temperature coatings 5.2.10 Temperature-indicator safety coatings 5.2.11 Antenna coatings 5.2.12 Antifouling coatings 5.2.13 Flow coatings 5.2.14 Bituminous roof primers 5.2.15 Specialty primers, sealers and undercoaters	specified in Sections 5.2.3.2, 5.2.3.3, 5.2.3.5 through 5.2.3.9, and 5.2.3.14 through 5.2.3.18, if a coating is recommended for use in more than one of the specialty coating categories listed in the Table of Standards 2, the most restrictive (or lowest) VOC content limit shall apply. 5.2.3 This requirement applies to: usage recommendations that appear anywhere on the coating container, anywhere on any label or sticker affixed to the container, or in any sales, advertising, or technical literature supplied by a manufacturer or anyone acting on their behalf. 5.2.3.1 Lacquer coatings (including lacquer sanding sealers) 5.2.3.2 Metallic pigmented coatings 5.2.3.3 Shellacs 5.2.3.4 Fire-retardant coatings 5.2.3.5 Pretreatment wash primers 5.2.3.6 Industrial maintenance coatings 5.2.3.7 Low-solids coatings 5.2.3.8 Wood preservatives 5.2.3.9 High temperature coatings 5.2.3.10 Temperature-indicator safety coatings 5.2.3.11 Antenna coatings 5.2.3.12 Antifouling coatings 5.2.3.13 Flow coatings 5.2.3.14 Bituminous roof primers 5.2.3.15 Specialty primers, sealers and undercoaters 5.2.3.16 Aluminum roof coatings 5.2.3.17 Zinc-rich primers 5.2.3.18 Wood Coatings	
	5.3 Sell-Through of Coatings: 5.3.1 A coating manufactured prior to the January 1, 2003 or January 1, 2004 effective date specified for that coating in the Table of Standards may be sold, supplied, or offered for sale for up to three years after the specified effective date. In addition, a coating manufactured before the effective date specified for that coating in the Table of Standards may be applied at any time, both before and after the specified effective date, so long as the coating complied with the standards in effect at the time the coating was manufactured. This Section 5.3 does not apply to any coating that does not display the date or date-code required by Section 6.1.1. 5.3.2 A coating included in an approved Averaging Program that does not comply with the specified limit in the Table of Standards may be sold,	5.3 Sell-Through of Coatings: A coating manufactured prior to the effective date specified for that coating in the Table of Standards 1 or the Table of Standards 2, and that complied with the standards in effect at the time the coating was manufactured, may be sold, supplied, or offered for sale for up to three years after the specified effective date. In addition, a coating manufactured before the effective date specified for that coating in the Table of Standards 1 or the Table of Standards 2 may be applied at any time, both before and after the specified effective date, so long as the coating complied with the standards in effect at the time the coating was manufactured. This Section 5.3 does not apply to any coating that does not display the date or date-code required by Section 6.1.1.	The VOC limit of the non-SIP version is at least as stringent as the SIP version. Section 5.3.2 was removed it is no longer applicable in the SIP version. Therefore, the non-SIP version of the rule is more stringent than the SIP version of the rule.

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
	supplied, or offered for sale for up to three years after the end of the compliance period specified in the approved Averaging Program. In addition, such a coating may be applied at any time, both during and after the compliance period. This Section 5.3.2 does not apply to any coating that does not display on the container either the statement: "This product is subject to architectural coatings averaging provisions in California" or a substitute symbol specified by the Executive Officer of the California Air Resources Board (ARB). This Section 5.3.2 shall remain in effect until January 1, 2008.		
	5.4 Painting Practices: All architectural coating containers used to apply the contents therein to a surface directly from the container by pouring, siphoning, brushing, rolling, padding, ragging or other means, shall be closed when not in use. These architectural coating containers include, but are not limited to, drums, buckets, cans, pails, trays or other application containers. Containers of any VOC containing materials used for thinning and cleanup shall also be closed when not in use.	5.4 Painting Practices: All architectural coating containers used to apply the contents therein to a surface directly from the container by pouring, siphoning, brushing, rolling, padding, ragging or other means, shall be closed when not in use. These architectural coating containers include, but are not limited to, drums, buckets, cans, pails, trays or other application containers. Containers of any VOC-containing materials used for thinning and cleanup shall also be closed when not in use.	No change in the requirements, therefore, non-SIP version of rule is as stringent as SIP version.
	5.5 Thinning: No person who applies or solicits the application of any architectural coating shall apply a coating that is thinned to exceed the applicable VOC limit specified in the Table of Standards.	5.5 Thinning: No person who applies or solicits the application of any architectural coating shall apply a coating that is thinned to exceed the applicable VOC limit specified in the Table of Standards 1 or the Table of Standards 2.	The VOC limit of the non-SIP version is at least as stringent as the SIP version. Therefore, the non-SIP version of the rule is more stringent than the SIP version of the rule.
	5.6 Rust Preventative Coatings: Effective January 1, 2004, no person shall apply or solicit the application of any rust preventative coating for industrial use, unless such a rust preventative coating complies with the industrial maintenance coating VOC limit specified in the Table of Standards.	5.6 Rust Preventative Coatings: Effective through December 31, 2010, no person shall apply or solicit the application of any rust preventative coating for industrial use, unless such a rust preventative coating complies with the industrial maintenance coating VOC limit specified in the Table of Standards 1.	The VOC limit of the non-SIP version is at least as stringent as the SIP version. Therefore, the non-SIP version of the rule is more stringent than the SIP version of the rule.
	5.7 Coatings Not Listed in the Table of Standards: For any coating that does not meet any of the definitions for the specialty coatings categories listed in the Table of Standards, the VOC content limit shall be determined by classifying the coating as a flat coating or a nonflat coating, based on its gloss, as defined in Sections 3.21, 3.36 and 3.37 and the corresponding flat or nonflat VOC limit shall apply.	5.7 Coatings Not Listed in the Table of Standards 1 or the Table of Standards 2: For any coating that does not meet any of the definitions for the specialty coatings categories listed in the Table of Standards 1 or the Table of Standards 2, the VOC content limit shall be determined by classifying the coating as a Flat, Nonflat, or Nonflat – High Gloss coating, based on its gloss, and the corresponding Flat, Nonflat, or Nonflat – High Gloss VOC limit in the Table of Standards 1 or the Table of Standards 2 shall apply.	The VOC limit of the non-SIP version is at least as stringent as the SIP version. Therefore, the non-SIP version of the rule is more stringent than the SIP version of the rule.
	5.8 Lacquers: Notwithstanding the provisions of Section 3.1, a person or facility may add up to 10 percent by volume of VOC to a lacquer to avoid blushing of the finish during days with relative humidity greater than 70 percent and temperature below	---	This section has been removed. The operation is required to meet the lacquer VOC limit regardless of temperature and

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
	65°F, at the time of application, provided that the coating contains acetone and no more than 550 grams of VOC per liter of coating, less water and exempt compounds, prior to the addition of VOC.		humidity. Therefore, non-SIP version of rule is as stringent as SIP version
	5.9 Averaging Compliance Option: On or after January 1, 2003, in lieu of compliance with the specified limits in The Table of Standards for floor coatings; industrial maintenance coatings; primers, sealers, and undercoaters; quick-dry primers, sealers, and undercoaters; quick-dry enamels; roof coatings; bituminous roof coatings; rust preventative coatings; stains; waterproofing sealers, as well as flats and non-flats (excluding recycled coatings), manufacturers may average designated coatings such that their actual cumulative emissions from the averaged coatings are less than or equal to the cumulative emissions that would have been allowed under those limits over a compliance period not to exceed one year. Such manufacturers must also comply with the averaging provisions contained in Section 8.0, as well as maintain and make available for inspection records for at least three years after the end of the compliance period. This Section 5.9 and Section 8.0 shall cease to be effective on January 1, 2005, after which averaging will no longer be allowed.	---	This section is removed from the non-SIP version, it is no longer applicable. Therefore, non-SIP version of rule is as stringent as SIP version.
	---	5.8 Prior to January 1, 2011, any coating that meets a definition in Section 3.0 for a coating category listed in the Table of Standards 2 and complies with the applicable VOC limit in the Table of Standards 2 and with Sections 5.2 and 6.1 (including those provision of Section 6.1 otherwise effective on January 1, 2011) shall be considered in compliance with this rule.	Table of Standards 2 is more stringent than the VOC limits of Table of Standards in the SIP-Approved version. Therefore, non-SIP version of rule is as stringent as SIP version.
	Table of Standards (See Attachment X for Table)	Table of Standards 1 (Effective through 12/31/10) (See Attachment X for Table)	The non-SIP rule requirements are the same as the Table of Standards in the SIP approved rule, except Table of Standards 1 expires at which time Table of Standards 2 is in effect. As discussed below these standards are more stringent. Therefore, non-SIP version of rule is as stringent as SIP version.
		Table of Standards 2 (Effective on and after 1/1/11) (See Attachment X for Table)	The requirements of Table of Standards 2 are more stringent than the Table of Standards in the SIP rule. Therefore, non-SIP version of rule is as stringent as SIP version.
6.0 Administrative Requirements	6.1 Labeling Requirements: Each manufacturer of any architectural coating subject to this rule shall display the information listed in Sections 6.1.1 through 6.1.9 on the coating container (or	6.1 Labeling Requirements: Each manufacturer of any architectural coating subject to this rule shall display the information listed in Sections 6.1.1 through	The non-SIP approved rule contain sections listed in the SIP rule plus additional requirements

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
	<p>label) in which the coating is sold or distributed.</p> <p>6.1.1 Date Code: The date the coating was manufactured, or a date code representing the date, shall be indicated on the label, lid or bottom of the container. If the manufacturer uses a date code for any coating, the manufacturer shall file an explanation of each code with the Executive Officer of the ARB.</p> <p>6.1.2 Thinning Recommendations: A statement of the manufacturer's recommendation regarding thinning of the coating shall be indicated on the label or lid of the container. This requirement does not apply to the thinning of architectural coatings with water. If thinning of the coating prior to use is not necessary, the recommendation must specify that the coating is to be applied without thinning.</p> <p>6.1.3 VOC Content: Each container of any coating subject to this rule shall display either the maximum or actual VOC content of the coating, as supplied, including the maximum thinning as recommended by the manufacturer. VOC content shall be displayed in grams of VOC per liter of coating. VOC content displayed shall be calculated using product formulation data, or shall be determined using the test methods in Section</p> <p>6.3.1. The equations in Sections 3.25 or 3.26, as appropriate, shall be used to calculate VOC content.</p> <p>6.1.4 Industrial Maintenance Coatings: In addition to the information specified in Sections 6.1.1, 6.1.2 and 6.1.3, each manufacturer of any industrial maintenance coating subject to this rule shall display on the label or lid of the container in which the coating is sold or distributed one or more of the following descriptions listed in Section 6.1.4.1 through 6.1.4.3.</p> <p>6.1.4.1 "For industrial use only"</p> <p>6.1.4.2 "For professional use only"</p> <p>6.1.4.3 "Not for residential use" or "Not intended for residential use"</p> <p>6.1.5 Clear Brushing Lacquers: Effective January 1, 2003, the labels of all clear brushing lacquers shall prominently display the statements "For brush application only," and "This product must not be thinned or sprayed."</p> <p>6.1.6 Rust Preventative Coatings: Effective January 1, 2003, the labels of all rust preventative coatings shall prominently display the statement "For Metal Substrates Only"</p> <p>6.1.7 Specialty Primers, Sealers and Undercoaters: Effective January 1, 2003, the labels of all specialty primers, sealers and undercoaters shall prominently display one or more of the descriptions</p>	<p>6.1.14 on the coating container (or label) in which the coating is sold or distributed.</p> <p>6.1.1 Date Code: The date the coating was manufactured, or a date code representing the date, shall be indicated on the label, lid or bottom of the container. If the manufacturer uses a date code for any coating, the manufacturer shall file an explanation of each code with the Executive Officer of the ARB.</p> <p>6.1.2 Thinning Recommendations: A statement of the manufacturer's recommendation regarding thinning of the coating shall be indicated on the label or lid of the container. This requirement does not apply to the thinning of architectural coatings with water. If thinning of the coating prior to use is not necessary, the recommendation must specify that the coating is to be applied without thinning.</p> <p>6.1.3 VOC Content: Each container of any coating subject to this rule shall display one of the following values, in grams of VOC per liter of coating:</p> <p>6.1.3.1 Maximum VOC Content, as determined from all potential product formulations; or</p> <p>6.1.3.2 VOC Content, as determined from actual formulation data; or</p> <p>6.1.3.3 VOC Content, as determined using the test methods in Section 6.3.2.</p> <p>If the manufacturer does not recommend thinning, the container must display the VOC Content, as supplied. If the manufacturer recommends thinning, the container must display the VOC Content, including the maximum amount of thinning solvent recommended by the manufacturer. If the coating is a multicomponent product, the container must display the VOC content as mixed or catalyzed. If the coating contains silanes, siloxanes, or other ingredients that generate ethanol or other VOCs during the curing process, the VOC content must include the VOCs emitted during curing.</p> <p>6.1.4 Faux Finishing Coatings: Effective January 1, 2011, the labels of all clear topcoat Faux Finishing coatings shall prominently display the statement "This product can only be sold or used as part of a Faux Finishing coating system".</p> <p>6.1.5 Industrial Maintenance Coatings: Each manufacturer of any industrial maintenance coating subject to this rule shall display on the label or lid of the container in which the coating is</p>	<p>not found in the SIP version. Therefore, non-SIP version of rule is as stringent as SIP version.</p>

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
	<p>listed in Section 6.1.7.1 through 6.1.7.5.</p> <p>6.1.7.1 For blocking stains.</p> <p>6.1.7.2 For fire-damaged substrates.</p> <p>6.1.7.3 For smoke-damaged substrates.</p> <p>6.1.7.4 For water-damaged substrates.</p> <p>6.1.7.5 For excessively chalky substrates.</p> <p>6.1.8 Quick Dry Enamels: Effective January 1, 2003, the labels of all quick dry enamels shall prominently display the words "Quick Dry" and the dry hard time.</p> <p>6.1.9 Non-flat – High Gloss Coatings: Effective January 1, 2003, the labels of all non-flat – high gloss coatings shall prominently display the words "High Gloss".</p>	<p>sold or distributed one or more of the following descriptions listed in Section 6.1.5.1 through 6.1.5.3.</p> <p>6.1.5.1 "For industrial use only"</p> <p>6.1.5.2 "For professional use only"</p> <p>6.1.5.3 "Not for residential use" or "Not intended for residential use"</p> <p>6.1.6 Clear Brushing Lacquers: The labels of all clear brushing lacquers shall prominently display the statements "For brush application only," and "This product must not be thinned or sprayed." (Category deleted effective January 1, 2011.)</p> <p>6.1.7 Rust Preventative Coatings: The labels of all rust preventative coatings shall prominently display the statement "For Metal Substrates Only".</p> <p>6.1.8 Specialty Primers, Sealers and Undercoaters: Effective until December 31, 2010, the labels of all specialty primers, sealers and undercoaters shall prominently display one or more of the descriptions listed in Section 6.1.8.1 through 6.1.8.5. Effective on and after January 1, 2011, the labels of all specialty primers, sealers, and undercoaters shall prominently display one or more of the descriptions listed in Sections 6.1.8.1 through 6.1.8.3. On and after January 1, 2011, Sections 6.1.8.4 and 6.1.8.5 will be no longer effective.</p> <p>6.1.8.1 For fire-damaged substrates.</p> <p>6.1.8.2 For smoke-damaged substrates.</p> <p>6.1.8.3 For water-damaged substrates.</p> <p>6.1.8.4 For excessively chalky substrates.</p> <p>6.1.8.5 For blocking stains.</p> <p>6.1.9 Quick Dry Enamels: The labels of all quick dry enamels shall prominently display the words "Quick Dry" and the dry hard time. (Category deleted effective January 1, 2011.)</p> <p>6.1.10 Reactive Penetrating Sealers: Effective January 1, 2011, the labels of all Reactive Penetrating Sealers shall prominently display the statement "Reactive Penetrating Sealer."</p> <p>6.1.11 Stone Consolidants: Effective January 1, 2011, the labels of all Stone Consolidants shall prominently display the statement "Stone Consolidant - For Professional Use Only."</p> <p>6.1.12 Nonflat– High Gloss Coatings: The labels of all Nonflat – high gloss coatings shall prominently display the words "High Gloss."</p> <p>6.1.13 Wood Coatings: Effective January</p>	

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
		<p>1, 2011, the labels of all Wood Coatings shall prominently display the statement "For Wood Substrates Only."</p> <p>6.1.14 Zinc Rich Primers: Effective January 1, 2011, the labels of all Zinc Rich Primers shall prominently display one or more of the following descriptions listed in Section 6.1.14.1 through 6.1.14.3.</p> <p>6.1.14.1 "For industrial use only"</p> <p>6.1.14.2 "For professional use only"</p> <p>6.1.14.3 "Not for residential use" or "Not intended for residential use"</p>	
	<p>6.2 Reporting Requirements</p> <p>6.2.1 Clear Brushing Lacquers: Each manufacturer of clear brushing lacquers shall, on or before April 1 of each calendar year beginning in the year 2004, submit an annual report to the Executive Officer of the ARB. The report shall specify the number of gallons of clear brushing lacquers sold in the State during the preceding calendar year, and shall describe the method used by the manufacturer to calculate State sales.</p> <p>6.2.2 Rust Preventative Coatings: Each manufacturer of rust preventative coatings shall, on or before April 1 of each calendar year beginning in the year 2004, submit an annual report to the Executive Officer of the ARB. The report shall specify the number of gallons of rust preventative coatings sold in the State during the preceding calendar year, and shall describe the method used by the manufacturer to calculate State sales.</p> <p>6.2.3 Specialty Primers, Sealers and Undercoaters: Each manufacturer of specialty primers, sealers and undercoaters shall, on or before April 1 of each calendar year beginning in the year 2004, submit an annual report to the Executive Officer of the ARB. The report shall specify the number of gallons of specialty primers, sealers and undercoaters sold in the State during the preceding calendar year, and shall describe the method used by the manufacturer to calculate State sales.</p> <p>6.2.4 Toxic Exempt Compounds: For each architectural coating that contains perchloroethylene or methylene chloride, the manufacturer shall, on or before April 1 of each calendar year beginning in the year 2004, submit an annual report to the Executive Officer of the ARB the following information for products sold in the State during the preceding year:</p> <p>6.2.4.1 the product brand name and a copy of the product label with legible usage instructions;</p> <p>6.2.4.2 the product category listed in</p>	<p>6.2 Reporting Requirements</p> <p>The reporting requirements specified in Sections 6.2.1 through 6.2.6 shall apply until December 31, 2010.</p> <p>6.2.1 Clear Brushing Lacquers: Each manufacturer of clear brushing lacquers shall, on or before April 1 of each calendar year beginning in the year 2004, submit an annual report to the Executive Officer of the ARB. The report shall specify the number of gallons of clear brushing lacquers sold in the State during the preceding calendar year, and shall describe the method used by the manufacturer to calculate State sales.</p> <p>6.2.2 Rust Preventative Coatings: Each manufacturer of rust preventative coatings shall, on or before April 1 of each calendar year beginning in the year 2004, submit an annual report to the Executive Officer of the ARB. The report shall specify the number of gallons of rust preventative coatings sold in the State during the preceding calendar year, and shall describe the method used by the manufacturer to calculate State sales.</p> <p>6.2.3 Specialty Primers, Sealers and Undercoaters: Each manufacturer of specialty primers, sealers and undercoaters shall, on or before April 1 of each calendar year beginning in the year 2004, submit an annual report to the Executive Officer of the ARB. The report shall specify the number of gallons of specialty primers, sealers and undercoaters sold in the State during the preceding calendar year, and shall describe the method used by the manufacturer to calculate State sales.</p> <p>6.2.4 Toxic Exempt Compounds: For each architectural coating that contains perchloroethylene or methylene chloride, the manufacturer shall, on or before April 1 of each calendar year beginning in the year 2004, submit an annual report to the Executive Officer</p>	<p>Until December 31, 2010 both versions of the rule have the same reporting requirements. After that date the non-SIP approved rule includes very specific information to be kept and is required for all architectural coatings. Therefore, non-SIP version of rule is as stringent as SIP version.</p>

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
	<p>the Table of Standards to which the coating belongs;</p> <p>6.2.4.3 the total sales in California during the calendar year to the nearest gallon;</p> <p>6.2.4.4 the volume percent, to the nearest 0.10 percent, of perchloroethylene and methylene chloride in the coating.</p> <p>6.2.5 Recycled Coatings: Manufacturers of recycled coatings must submit a letter to the Executive Officer of the ARB certifying their status as a Recycled Paint Manufacturer. The manufacturer shall, on or before April 1 of each calendar year beginning with the year 2004, submit an annual report to the Executive Officer of the ARB. The report shall include, for all recycled coatings, the total number of gallons distributed in the State during the preceding year, and shall describe the method used by the manufacturer to calculate State distribution.</p> <p>6.2.6 Bituminous Coatings: Each manufacturer of bituminous roof coatings or bituminous roof primers shall, on or before April 1 of each calendar year beginning with the year 2004, submit an annual report to the Executive Officer of ARB. The report shall specify the number of gallons of bituminous roof coatings or bituminous roof primers sold in the State during the preceding calendar year, and shall describe the method used by the manufacturer to calculate State sales.</p>	<p>of the ARB the following information for products sold in the State during the preceding year:</p> <p>6.2.4.1 the product brand name and a copy of the product label with legible usage instructions;</p> <p>6.2.4.2 the product category listed in the Table of Standards 1 or the Table of Standards 2 to which the coating belongs;</p> <p>6.2.4.3 the total sales in California during the calendar year to the nearest gallon;</p> <p>6.2.4.4 the volume percent, to the nearest 0.10 percent, of perchloroethylene and methylene chloride in the coating.</p> <p>6.2.5 Recycled Coatings: Manufacturers of recycled coatings must submit a letter to the Executive Officer of the ARB certifying their status as a Recycled Paint Manufacturer. The manufacturer shall, on or before April 1 of each calendar year beginning with the year 2004, submit an annual report to the Executive Officer of the ARB. The report shall include, for all recycled coatings, the total number of gallons distributed in the State during the preceding year, and shall describe the method used by the manufacturer to calculate State distribution.</p> <p>6.2.6 Bituminous Coatings: Each manufacturer of bituminous roof coatings or bituminous roof primers shall, on or before April 1 of each calendar year beginning with the year 2004, submit an annual report to the Executive Officer of ARB. The report shall specify the number of gallons of bituminous roof coatings or bituminous roof primers sold in the State during the preceding calendar year, and shall describe the method used by the manufacturer to calculate state sales.</p> <p>6.2.7 Effective on and after January 1, 2011, Sales Data: All sales data listed in Sections 6.2.7.1 to 6.2.7.14 shall be maintained on-site by the responsible official for a minimum of three years. A responsible official from each manufacturer shall upon request of the Executive Officer of the ARB, or his or her delegate, provide data concerning the distribution and sales of architectural coatings. Sales data submitted by the responsible official to the Executive Officer of the ARB may be claimed as confidential, and such information shall be handled in accordance with the procedures specified in Title 17, California Code of Regulations</p>	

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	<p>coating shall be determined by ASTM Designation E 119-98, "Standard Test Methods for Fire Tests of Building Construction Materials"(see Section 3, Fire-Resistive Coating).</p> <p>6.3.6 Gloss Determination: The gloss of a coating shall be determined by ASTM Designation D 523-89 (1999), "Standard Test Method for Specular Gloss"(see Section 3, Flat Coating, Nonflat Coating, Nonflat-High Gloss Coating and Quick-Dry Enamel).</p> <p>6.3.7 Metal Content of Coatings: The metallic content of a coating shall be determined by SCAQMD Method 318-95, Determination of Weight Percent Elemental Metal in Coatings by X-Ray Diffraction, <i>SCAQMD Laboratory Methods of Analysis for Enforcement Samples</i> (see Section 3, Metallic Pigmented Coating).</p> <p>6.3.8 Acid Content of Coatings: The acid content of a coating shall be determined by ASTM Designation D 1613-96, "Standard Test Method for Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer and related products"(see Section 3, Pre-Treatment Wash Primer).</p> <p>6.3.9 Drying Times: The set-to-touch, dry-hard, dry-to-touch and dry-to-recoat times of a coating shall be determined by ASTM Designation D 1640-95, "Standard Test Methods for Drying, Curing, or Film Formation of Organic Coatings at Room Temperature" (see Section 3, Quick-Dry Enamel and Quick-Dry Primer, Sealer and Undercoater) The tack-free time of a quickdry enamel coating shall be determined by the Mechanical Test Method of ASTM Designation D 1640-95.</p> <p>6.3.10 Surface Chalkiness: The chalkiness of a surface shall be determined using ASTM Designation D4214-98, "Standard Test Methods for Evaluating the Degree of Chalking of Exterior Paint Films"(see Section 3, Specialty Primer, Sealer and Undercoater).</p> <p>6.3.11 Exempt Compounds—Siloxanes: Exempt compounds that are cyclic, branched, or linear completely methylated siloxanes, shall be analyzed as exempt compounds for compliance with Section 6 by BAAQMD Method 43, "Determination of Volatile Methylsiloxanes in Solvent-Based Coatings, Inks, and Related Materials," <i>BAAQMD Manual of Procedures</i>, Volume III, adopted 11/6/96 (see Section 3, Volatile Organic Compound, and Section 6.3.1).</p> <p>6.3.12 Exempt Compounds—Parachlorobenzotrifluoride (PCBTF):</p>	<p>an alternative method is approved as specified in Section 6.3.3. The District Air Pollution Control Officer (APCO) may require the manufacturer to conduct an EPA Method 24 analysis.</p> <p>6.3.3 Alternative Test Methods: Other test methods demonstrated to provide results that are acceptable for purposes of determining compliance with Section 6.3.2 4, after review and approved in writing by the staffs of the District, ARB and EPA, may also be used.</p> <p>6.3.4 Methacrylate Traffic Marking Coatings: Analysis of methacrylate multicomponent coatings used as traffic marking coatings shall be conducted according to a modification of EPA Method 24 (40 CFR 59, subpart D, Appendix A). This method has not been approved for methacrylate multicomponent coatings used for other purposes than as traffic marking coatings or for other classes of multicomponent coatings.</p> <p>6.3.5 Flame Spread Index: The flame spread index of a fire-retardant coating shall be determined by ASTM E84-07, "Standard Test Method for Surface Burning Characteristics of Building Materials" (see Section 3.0, Fire-Retardant Coating).</p> <p>6.3.6 Fire Resistance Rating: The fire resistance rating of a fire-resistive coating shall be determined by ASTM E119-07, "Standard Test Methods for Fire Tests of Building Construction Materials" (see Section 3.0, Fire-Resistive Coating).</p> <p>6.3.7 Gloss Determination: The gloss of a coating shall be determined by ASTM D523-89 (1999), "Standard Test Method for Specular Gloss" (see Section 3.0, Flat Coating, Nonflat Coating, Nonflat-High Gloss Coating and Quick-Dry Enamel).</p> <p>6.3.8 Metal Content of Coatings: The metallic content of a coating shall be determined by SCAQMD Method 318-95, Determination of Weight Percent Elemental Metal in Coatings by X-Ray Diffraction, <i>SCAQMD Laboratory Methods of Analysis for Enforcement Samples</i> (see Section 3.0, Metallic Pigmented Coating, Aluminum Roof Coating and Faux Finish).</p> <p>6.3.9 Acid Content of Coatings: The acid content of a coating shall be determined by ASTM D1613-06, "Standard Test Method for Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer and related products" (see Section 3.0, Pre-Treatment Wash Primer).</p> <p>6.3.10 Drying Times: The set-to-touch,</p>	

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
	<p>6.3.1 VOC Content of Coatings: To determine the physical properties of a coating in order to perform the calculations in Section 3.26 and 3.27, the reference method for VOC content is U.S. EPA Method 24, except as provided in Sections 6.3.2 and 6.3.15. An alternative method to determine the VOC content of coatings is SCAQMD Method 304-91 (Revised February 1996), incorporated by reference in Section 6.3.14. The exempt compounds content shall be determined by SCAQMD Method 303-91 (Revised August 1996), incorporated by reference in Section 6.3.12. To determine the VOC content of a coating, the manufacturer may use U.S. EPA Method 24, or an alternative method as provided in Section 6.3.2, formulation data, or any other reasonable means for predicting that the coating has been formulated as intended (e.g., quality assurance checks, recordkeeping). However, if there are any inconsistencies between the results of a Method 24 test and any other means for determining VOC content, the Method 24 test results will govern, except when an alternative method is approved as specified in Section 6.3.2. The District Air Pollution Control Officer (APCO) may require the manufacturer to conduct a Method 24 analysis.</p> <p>6.3.2 Alternative Test Methods: Other test methods demonstrated to provide results that are acceptable for purposes of determining compliance with Section 6.3.1, after review and approved in writing by the staffs of the District, the ARB and the U.S. EPA, may also be used. 6.3.3 Methacrylate Traffic Marking Coatings: Analysis of methacrylate multicomponent coatings used as traffic marking coatings shall be conducted according to a modification of U.S. EPA Method 24 (40 CFR 59, subpart D, Appendix A), incorporated by reference in Section 6.3.15. This method has not been approved for methacrylate multicomponent coatings used for other purposes than as traffic marking coatings or for other classes of multicomponent coatings.</p> <p>6.3.4 Flame Spread Index: The flame spread index of a fire-retardant coating shall be determined by ASTM Designation E 84-99, "Standard Test Method for Surface Burning Characteristics of Building Materials"(see Section 3, Fire-Retardant Coating).</p> <p>6.3.5 Fire Resistance Rating: The fire resistance rating of a fire-resistive</p>	<p>The test methods listed below shall be used to demonstrate compliance with this rule. Alternate equivalent test methods may be used provided the test methods have been approved by the APCO and EPA.</p> <p>6.3.1 Calculation of VOC Content: For the purpose of determining compliance with the VOC content limits in the Table of Standards 1 or the Table of Standards 2, the VOC content of a coating shall be determined as defined in Section 3.77, 3.78, or 3.79 as appropriate. The VOC content of a tint base shall be determined without colorant that is added after the tint base is manufactured. If the manufacturer does not recommend thinning, the VOC Content must be calculated for the product as supplied. If the manufacturer recommends thinning, the VOC Content must be calculated including the maximum amount of thinning solvent recommended by the manufacturer. If the coating is a multi-component product, the VOC content must be calculated as mixed or catalyzed. If the coating contains silanes, siloxanes, or other ingredients that generate ethanol or other VOC during the curing process, the VOC content must include the VOCs emitted during curing.</p> <p>6.3.2 VOC Content of Coatings: To determine the physical properties of a coating in order to perform the calculations in Section 3.77 and 3.79, the reference method for VOC content is EPA Method 24, except as provided in Sections 6.3.3 and 6.3.16. An alternative method to determine the VOC content of coatings is SCAQMD Method 304-91 (Revised February 1996). The exempt compounds content shall be determined by SCAQMD Method 303-91 (Revised 1993), BAAQMD Method 43 (Revised 1996), or BAAQMD Method 41 (Revised 1995), as applicable. To determine the VOC content of a coating, the manufacturer may use EPA Method 24, or an alternative method as provided in Section 6.3.3, formulation data, or any other reasonable means for predicting that the coating has been formulated as intended (e.g., quality assurance checks, recordkeeping). However, if there are any inconsistencies between the results of EPA Method 24 test and any other means for determining VOC content, the EPA Method 24 test results will govern, except when</p>	<p>includes all the requirements of the SIP version. Therefore, the non-SIP version of the rule is more stringent than the SIP version of the rule.</p>

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
	<p>The exempt compound parachlorobenzotrifluoride, shall be analyzed as an exempt compound for compliance with Section 6 by BAAQMD Method 41, "Determination of Volatile Organic Compounds in Solvent Based Coatings and Related Materials Containing Parachlorobenzotrifluoride," BAAQMD <i>Manual of Procedures</i>, Volume III, adopted 12/20/95 (see Section 3, Volatile Organic Compound, and Section 6.3.1).</p> <p>6.3.13 Exempt Compounds: The content of compounds under U.S. EPA Method 24 shall be analyzed by SCAQMD Method 303-91 (Revised 1996), "Determination of Exempt Compounds," <i>SCAQMD Laboratory Methods of Analysis for Enforcement Samples</i> (see Section 3, Volatile Organic Compound, and Section 6.3.1).</p> <p>6.3.14 VOC Content of Coatings: The VOC content of a coating shall be determined by U.S. EPA Method 24 as it exists in appendix A of 40 <i>Code of Federal Regulations</i> (CFR) part 60, "Determination of Volatile Matter Content, Water Content, Density, Volume Solids and Weight Solids of Surface Coatings"(see Section 6.3.1).</p> <p>6.3.15 Alternative VOC Content of Coatings: The VOC content of coatings may be analyzed either by U.S. EPA Method 24 or SCAQMD Method 304-91 (Revised 1996), "Determination of Volatile Organic Compounds (VOC) in Various Materials," <i>SCAQMD Laboratory Methods of Analysis for Enforcement Samples</i> (see Section 6.3.1).</p> <p>6.3.16 Methacrylate Traffic Marking Coatings: The VOC content of methacrylate multicomponent coatings used as traffic marking coatings shall be analyzed by the procedures in 40 CFR part 59, subpart D, appendix A, "Determination of Volatile Matter Content of Methacrylate Multicomponent Coatings Used as Traffic Marking Coatings" (September 11, 1998) (see Section 6.3.3).</p>	<p>dry-hard, dry-to-touch and dry-to-recoat times of a coating shall be determined by ASTM D1640-95, "Standard Test Methods for Drying, Curing, or Film Formation of Organic Coatings at Room Temperature" (see Section 3.0, Quick-Dry Enamel and Quick-Dry Primer, Sealer and Undercoater) The tack-free time of a quick-dry enamel coating shall be determined by the Mechanical Test Method of ASTM D1640-95. (Category deleted effective January 1, 2011.)</p> <p>6.3.11 Surface Chalkiness: The chalkiness of a surface shall be determined using ASTM D4214-98, "Standard Test Methods for Evaluating the Degree of Chalking of Exterior Paint Films"(see Section 3, Specialty Primer, Sealer and Undercoater). (Category deleted effective January 1, 2011.)</p> <p>6.3.12 Exempt Compounds—Siloxanes: Exempt compounds that are cyclic, branched, or linear completely methylated siloxanes, shall be analyzed as exempt compounds for compliance with Section 6 by BAAQMD Method 43, "Determination of Volatile Methylsiloxanes in Solvent-Based Coatings, Inks, and Related Materials," <i>BAAQMD Manual of Procedures</i>, Volume III, adopted 11/6/96 (see Section 3.0, Volatile Organic Compound, and Section 6.3.2).</p> <p>6.3.13 Exempt Compounds—Parachlorobenzotrifluoride (PCBTF): The exempt compound parachlorobenzotrifluoride, shall be analyzed as an exempt compound for compliance with Section 6 by BAAQMD Method 41, "Determination of Volatile Organic Compounds in Solvent Based Coatings and Related Materials Containing Parachlorobenzotrifluoride," <i>BAAQMD Manual of Procedures</i>, Volume III, adopted 12/20/95 (see Section 3.0, Volatile Organic Compound, and Section 6.3.2).</p> <p>6.3.14 Exempt Compounds: The content of compounds under U.S. EPA Method 24 shall be analyzed by SCAQMD Method 303-91 (Revised 1993), "Determination of Exempt Compounds," <i>SCAQMD Laboratory Methods of Analysis for Enforcement Samples</i> (see Section 3.0, Volatile Organic Compound, and Section 6.3.2).</p> <p>6.3.15 VOC Content of Coatings: The VOC content of a coating shall be determined by EPA Method 24 as it exists in appendix A of 40 <i>Code of Federal Regulations</i> (CFR) part 60,</p>	

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
		<p>"Determination of Volatile Matter Content, Water Content, Density, Volume Solids and Weight Solids of Surface Coatings" (see Section 6.3.2).</p> <p>6.3.16 Alternative VOC Content of Coatings: The VOC content of coatings may be analyzed either by U.S. EPA Method 24 or SCAQMD Method 304-91 (Revised 1996), "Determination of Volatile Organic Compounds (VOC) in Various Materials," SCAQMD Laboratory Methods of Analysis for Enforcement Samples.</p> <p>6.3.17 Methacrylate Traffic Marking Coatings: The VOC content of methacrylate multicomponent coatings used as traffic marking coatings shall be analyzed by the procedures in 40 CFR part 59, subpart D, appendix A, "Determination of Volatile Matter Content of Methacrylate Multicomponent Coatings Used as Traffic Marking Coatings" (September 11, 1998).</p> <p>6.3.18 Hydrostatic Pressure for Basement Specialty Coatings: The hydrostatic pressure resistance for basement specialty coatings shall be analyzed using ASTM D7088-04, "Standard Practice for Resistance to Hydrostatic Pressure for Coatings Used in Below Grade Applications Applied to Masonry".</p> <p>6.3.19 Tub and Tile Refinish Coating Adhesion: The adhesion of tub and tile coating shall be determined by ASTM D4585-99, "Standard Practice for Testing Water Resistance of Coatings Using Controlled Condensation" and ASTM D3359-02, "Standard Test Methods for Measuring Adhesion by Tape Test".</p> <p>6.3.20 Tub and Tile Refinish Coating Hardness: The hardness of tub and tile refinish coating shall be determined by ASTM D3363-05, "Standard Test Method for Film Hardness by Pencil Test".</p> <p>6.3.21 Tub and Tile Refinish Coating Abrasion Resistance: Abrasion resistance of tub and tile refinish coating shall be analyzed by ASTM D4060-07, "Standard Test Methods for Abrasion Resistance of Organic Coatings by the Taber Abraser".</p> <p>6.3.22 Tub and Tile Refinish Coating Water Resistance: Water resistance of tub and tile refinish coatings shall be determined by ASTM D4585-99, "Standard Practice for Testing Water Resistance of Coatings Using Controlled Condensation" and ASTM D714-02e1, "Standard Test Method for Evaluating Degree of Blistering of</p>	

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
		<p>Sections 91000-91022. The responsible official shall within 180 days provide information, including, but not limited to the data listed in Sections 6.2.7.1 through 6.2.7.14:</p> <p>6.2.7.1 the name and mailing address of the manufacturer;</p> <p>6.2.7.2 the name, address and telephone number of a contact person;</p> <p>6.2.7.3 the name of the coating product as it appears on the label and the applicable coating category;</p> <p>6.2.7.4 whether the product is marketed for interior or exterior use or both;</p> <p>6.2.7.5 the number of gallons sold in California in containers greater than one liter (1.057 quart) and equal to or less than one liter (1.057 quart);</p> <p>6.2.7.6 the VOC Actual content and VOC Regulatory content in grams per liter. If thinning is recommended, list the VOC Actual content and VOC Regulatory content after maximum recommended thinning. If containers less than one liter have a different VOC content than containers greater than one liter, list separately. If the coating is a multi-component product, provide the VOC content as mixed or catalyzed;</p> <p>6.2.7.7 the names and CAS numbers of the VOC constituents in the product;</p> <p>6.2.7.8 the names and CAS numbers of any compounds in the product specifically exempted from the VOC definition;</p> <p>6.2.7.9 whether the product is marketed as solvent-borne, waterborne, or 100% solids;</p> <p>6.2.7.10 description of resin or binder in the product;</p> <p>6.2.7.11 whether the coating is a single-component or multi-component product;</p> <p>6.2.7.12 the density of the product in pounds per gallon;</p> <p>6.2.7.13 the percent by weight of: solids, all volatile materials, water, and any compounds in the product specifically exempted from the VOC definition; and</p> <p>6.2.7.14 the percent by volume of: solids, water, and any compounds in the product specifically exempted from the VOC definition.</p>	
	6.3 Test Methods	6.3 Test Methods	The non-SIP version

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
		<p>Paints".</p> <p>6.3.23 Waterproofing Membrane: Waterproofing membrane shall be tested by ASTM C836-06, "Standard Specification for High Solids Content, Cold Liquid-Applied Elastomeric Waterproofing Membrane for Use with Separate Wearing Course".</p> <p>6.3.24 Mold and Mildew Growth for Basement Specialty Coatings: Mold and mildew growth resistance for basement specialty coatings shall be determined by ASTM D3273-00, "Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber" and ASTM D3274-95, "Standard Test Method for Evaluating Degree of Surface Disfigurement of Paint Films by Microbial (Fungal or Algal) Growth or Soil and Dirt Accumulation".</p> <p>6.3.25 Reactive Penetrating Sealer Water Repellency: Reactive penetrating sealer water repellency shall be analyzed by ASTM C67-07, "Standard Test Methods for Sampling and Testing Brick and Structural Clay Tile"; or ASTM C97-02, "Standard Test Methods for Absorption and Bulk Specific Gravity of Dimension Stone"; or ASTM C140-06, "Standard Test Methods for Sampling and Testing Concrete Masonry Units and Related Units".</p> <p>6.3.26 Reactive Penetrating Sealer Water Vapor Transmission: Reactive penetrating sealer water vapor transmission shall be analyzed ASTM E96/E96M-05, "Standard Test Method for Water Vapor Transmission of Materials".</p> <p>6.3.27 Reactive Penetrating Sealer - Chloride Screening Applications: Reactive penetrating sealers shall be analyzed by National Cooperative Highway Research Report 244 (1981), "Concrete Sealers for the Protection of Bridge Structures".</p> <p>6.3.28 Stone Consolidants: Stone consolidants shall be tested using ASTM E2167-01, "Standard Guide for Selection and Use of Stone Consolidants".</p>	
7.0 Compliance Schedule	Persons subject to this rule shall be in compliance with this rule by October 31, 2001.	Persons subject to this rule shall be in compliance with this rule by the dates specified within the rule.	No change in the requirements, therefore, non-SIP version of rule is as stringent as SIP version.
8.0 Averaging Compliance Option	8.1 On or after January 1, 2003, in lieu of compliance with the specified limits in the Table of Standards for floor coatings; industrial maintenance coatings; primers, sealers, and undercoaters; quick-dry primers, sealers, and undercoaters; quick-dry enamels; roof coatings; rust preventative coatings; stains;		No change in the requirements, therefore, non-SIP version of rule is as stringent as SIP version.

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
	<p>waterproofing sealers, as well as flats and non-flats (excluding recycled coatings), manufacturers may average designated coatings such that their actual cumulative emissions from the averaged coatings are less than or equal to the cumulative emissions that would have been allowed under those limits over a compliance period not to exceed one year. Such manufacturers must also comply with the averaging provisions contained in this Section, as well as maintain and make available for inspection records for at least three years after the end of the compliance period. This Section shall cease to be effective on January 1, 2005, after which averaging will no longer be allowed.</p> <p>Per Section 8.1, averaging is no longer applicable. Therefore, Section 8.2 through 8.14 are not listed.</p>		

District Rule 4601 was amended (12/17/2009). As analyzed, each amended section of the non-SIP version of the rule is at least as stringent as, or more stringent than the corresponding section of the SIP version of the rule. Therefore, it is concluded that overall the non-SIP version of the rule is more stringent than the SIP version of the rule.

TABLE OF STANDARDS 1 (Effective through 12/31/10)

Limits are expressed in grams of VOC per liter^a of coating thinned to the manufacturer's maximum recommendation, excluding the volume of any water, exempt compounds, or colorant added to tint bases. Manufacturer's maximum recommendation means the maximum recommendation for thinning that is indicated on the label or lid of the coating container.

COATING CATEGORY	Effective Date: 1/1/2003
Flat Coatings	100
Nonflat Coatings	150
Nonflat - High Gloss Coatings	250
Specialty Coatings	
Antenna Coatings	530
Antifouling Coatings	400
Bituminous Roof Coatings	300
Bituminous Roof Primers	350
Bond Breakers	350
Clear Wood Coatings:	
Clear Brushing Lacquers	680
Lacquers (including lacquer sanding sealers)	550
Sanding Sealers (other than lacquer sanding sealers)	350
Varnishes	350
Concrete Curing Compounds	350
Dry Fog Coatings	400
Faux Finishing Coatings	350
Fire Resistive Coatings	350
Fire-Retardant Coatings:	
Clear	650
Opaque	350
Floor Coatings	250
Flow Coatings	420
Form-Release Compounds	250
Graphic Arts Coatings (Sign Paints)	500
High Temperature Coatings	420
Industrial Maintenance Coatings	250
Low Solids Coatings	120 ^b
Magnesite Cement Coatings	450
Mastic Texture Coatings	300
Metallic Pigmented Coatings	500
Multi-Color Coatings	250

TABLE OF STANDARDS 1, continued (Effective through 12/31/10)

COATING CATEGORY	Effective Date: 1/1/2003
Pre-Treatment Wash Primers	420
Primers, Sealers, and Undercoaters	200
Quick-Dry Enamels	250
Quick-Dry Primers, Sealers and Undercoaters	200
Recycled Coatings	250
Roof Coatings	250
Rust Preventative Coatings	400
Shellacs:	
Clear	730
Opaque	550
Specialty Primers, Sealers, and Undercoaters	350
Stains	250
Swimming Pool Coatings	340
Swimming Pool Repair and Maintenance Coatings	340
Temperature-Indicator Safety Coatings	550
Traffic Marking Coatings	150
Waterproofing Sealers	250
Waterproofing Concrete/Masonry Sealers	400
Wood Preservatives	350

a Conversion factor: one pound VOC per gallon (U.S.) = 119.95 grams VOC per liter.

b Units are grams of VOC per liter of coating, including water and exempt compounds in accordance with Section 3.27.

TABLE OF STANDARDS 2 (Effective on and after 1/1/11)

Limits are expressed as VOC Regulatory, thinned to the manufacturer's maximum thinning recommendation, excluding any colorant added to tint bases.

COATING CATEGORY	VOC Limit (g/l) Effective 1/1/2011 through 12/31/2011²	VOC Limit (g/l) Effective on and after 1/1/2012²
Flat Coatings	50	50
Nonflat Coatings	100	100
Nonflat - High Gloss Coatings	150	150
Specialty Coatings		
Aluminum Roof Coatings	400	400
Basement Specialty Coatings	400	400
Bituminous Roof Coatings	50	50
Bituminous Roof Primers	350	350
Bond Breakers	350	350
Concrete Curing Compounds	350	350
Concrete/Masonry Sealers	100	100
Driveway Sealers	50	50
Dry Fog Coatings	150	150
Faux Finishing Coatings	350	350
Fire Resistive Coatings	350	350
Floor Coatings	100	100
Form-Release Compounds	250	250
Graphic Arts Coatings (Sign Paints)	500	500
High Temperature Coatings	420	420
Industrial Maintenance Coatings	250	250
Low Solids Coatings ¹	120 ¹	120 ¹
Magnesite Cement Coatings	450	450
Mastic Texture Coatings	100	100
Metallic Pigmented Coatings	500	500
Multi-Color Coatings	250	250
Pre-Treatment Wash Primers	420	420
Primers, Sealers, and Undercoaters	100	100
Reactive Penetrating Sealers	350	350
Recycled Coatings	250	250
Roof Coatings	50	50
Rust Preventative Coatings	400	250

TABLE OF STANDARDS 2 (continued) (Effective on and after 1/1/11)

Limits are expressed as VOC Regulatory, thinned to the manufacturer's maximum thinning recommendation, excluding any colorant added to tint bases.

COATING CATEGORY	VOC Limit (g/l) Effective 1/1/2011 through 12/31/2011 ²	VOC Limit (g/l) Effective on and after 1/1/2012 ²
Shellacs:		
Clear	730	730
Opaque	550	550
Specialty Primers, Sealers, and Undercoaters	350	100
Stains	250	250
Stone Consolidants	450	450
Swimming Pool Coatings	340	340
Traffic Marking Coatings	100	100
Tub and Tile Refinish Coatings	420	420
Waterproofing Membranes	250	250
Wood Coatings	275	275
Wood Preservatives	350	350
Zinc-Rich Primers	340	340

1 Units are grams of VOC per liter of coating, including water and exempt compounds in accordance with Section 3.77.

2 The dates listed do not preclude voluntary compliance with the applicable limit prior to those dates.

ATTACHMENT E

District Rule 4320 Emission Control Plan

SAN JOAQUIN REFINING COMPANY, INC.
 RULE 4320
 EMISSION CONTROL PLAN
 01/25/11

Permit To Operate #	Combustion Device Name	Fuel Type	Fuel HHV Gross Btu/Cu. Ft.	Unit Permitted Capacity (MMBtu/hr)	Estimated Fuel Consumption (MMBtu/yr)	NOx Current Permitted Limit (lb/MMBtu)	Rule 4320 NOx Limit (lb/MMBtu)	Rule 4320 Table 1 Category	Plan Of Action	
S-36-1	Crude Heater # 4	PUC Natural Gas	1,020	52.2	399,922	0.036	0.011 and 0.0062	D. 2 (b)	Pay Annual Emissions Fee	
S-36-1	Vacuum Heater # VH - 4	PUC Natural Gas	1,020	27.0	88,873	0.036	0.011 and 0.0062	D. 2 (b)	ATC by 7/1/11 To Install SCR	* Full Compliance by 7/1/12
S-36-41	Wickes Boiler	PUC Natural Gas	1,020	31.25	97,288	0.036	0.011 and 0.0062	D. 2 (b)	ATC by 7/1/11 To Install SCR	* Full Compliance by 7/1/12
		Oilfield Gas	775		58,505					
S-36-42	Visbreaker Heater	PUC Natural Gas	1,020	25.0	27,805	0.036	0.011 and 0.0062	D. 2 (b)	Pay Annual Emissions Fee	
S-36-51	H - 101	PUC Natural Gas	1,020	47.1	111,109	0.036	0.011 and 0.0062	D. 2 (b)	ATC by 7/1/11 To Install SCR	Full Compliance by 7/1/12
		PSA Offgas	249		120,608					
S-36-51	H - 201	Refinery Fuel Gas	892	7.44	42,334	0.0353	0.0070	D. 1 (b)	ATC by 7/1/11 To Install CoGen Unit	* Full Compliance by 1/1/14
S-36-51	H - 501	Refinery Fuel Gas	892	17.0	4,460	0.036	0.0070	D. 1 (b)	ATC by 7/1/11 To Install CoGen Unit	* Full Compliance by 1/1/14
S-36-51	H - 601	Refinery Fuel Gas	892	8.4	62,235	0.036	0.0070	D. 1 (b)	ATC by 7/1/11 To Install CoGen Unit	* Full Compliance by 1/1/14
S-36-51	H - 602	Refinery Fuel Gas	892	8.0	43,654	0.036	0.0070	D. 1 (b)	ATC by 7/1/11 To Install CoGen Unit	* Full Compliance by 1/1/14
S-36-99	Stand By Boiler	PUC Natural Gas	1,020	12.6	1,448	0.140	0.0110	E.	ATC by 7/1/11 To Install CoGen Unit	* Full Compliance by 1/1/14
S-36-2	Crude/Asphalt Heater	PUC Natural Gas	1,020	12.6	34,904	0.036	0.0070	D. 1 (b)	ATC by 7/1/11 To Install CoGen Unit	* Full Compliance by 1/1/14
S-36-4	ABA Hot Oil Heater	PUC Natural Gas	1,020	15.0	11,018	0.036	0.0070	D. 1 (b)	ATC by 7/1/11 To Install CoGen Unit	* Full Compliance by 1/1/14
S-36-37	LH - 1 Heater	PUC Natural Gas	1,020	16.5	101,235	0.036	0.0070	D. 1 (b)	ATC by 7/1/11 To Install CoGen Unit	* Full Compliance by 1/1/14
S-36-37	LH - 2 Heater	PUC Natural Gas	1,020	12.6	39,352	0.036	0.0070	D. 1 (b)	ATC by 7/1/11 To Install CoGen Unit	* Full Compliance by 1/1/14
S-36-37	LH - 3 Heater	PUC Natural Gas	1,020	12.0	83,864	0.036	0.0070	D. 1 (b)	ATC by 7/1/11 To Install CoGen Unit	* Full Compliance by 1/1/14

* = Full compliance with Rule 4320 limits OR shutdown of the heater/boiler.

ATTACHMENT F

Detailed Facility List

Detailed Facility Report
For Facility=36 and excluding Deleted Permits
Sorted by Facility Name and Permit Number

SAN JOAQUIN REFINING COMPANY		FAC #	S 36	TYPE:	TitleV	EXPIRE ON:	08/31/2006
STANDARD AND SHELL ST		STATUS:	A	TOXIC ID:	50217	AREA:	83 /
BAKERSFIELD, CA 93308		TELEPHONE:	6613278248			INSP. DATE:	03/11

PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-36-1-14	79,200 kBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	79.2 MMBTU/HR ATMOSPHERIC/VACUUM CRUDE UNIT #4 WITH PREFLASH COLUMN, FRACTIONATOR, VACUUM DISTILLATION COLUMN WITH MECHANICAL VACUUM PRODUCING SYSTEM, 27 MMBTU/HR GAS/OIL/WASTE GAS FIRED NATURAL DRAFT VACUUM HEATER #VH-4 WITH THREE ZEECO CLSF 11 LOW NOX BURNERS AND 52.2 MMBTU/HR GAS/OIL FIRED NATURAL DRAFT HEATER #4 WITH ZEECO MODEL CLSF LOW NOX BURNERS
S-36-2-7	12,600 kBtu/hr	3020-02 G	1	815.00	815.00	A	ATMOSPHERIC CRUDE UNIT #1 DISTILLATION COLUMN WITH 12.6 MMBTU/HR HEATER WITH FGR (SHARED WITH S-36-42)
S-36-4-15	15,000 kBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	ABA PLANT WITH ASPHALT BLOWING STILL (SOUTH), 200 HP BLOWER, CONDENSIBLES KNOCKOUT VESSEL, JOHN ZINK THERMAL OXIDIZER WITH THERMOX O2 RECORDING ANALYZER, AND 15 MMBTU/HR NORTH AMERICAN MODEL 6131-E2 FORCED DRAFT GAS/OIL-FIRED LOW NOX BURNER WITH FGR HOT OIL HEATER
S-36-5-3	12,600 GALLONS	3020-05 B	1	93.00	93.00	A	ABA PLANT WITH ASPHALT BLOWING STILL (MIDDLE) WITH SHARED EQUIPMENT LISTED IN S-36-4
S-36-6-3	84,000 GALLONS	3020-05 D	1	185.00	185.00	A	2,000 BBL TANK #2001 OIL/WATER SEPARATOR INCLUDING ABA PLANTS SCRUBBER EFFLUENT RECEIVER, PROCESS EQUIPMENT EFFLUENT RECEIVER, TANKAGE EFFLUENT RECEIVER, AND THREE OIL/WATER SUMPS
S-36-8-1	280,000 GALLONS	3020-05 E	1	246.00	246.00	A	280,000 GALLON CONE ROOF PETROLEUM STORAGE TANK #7001
S-36-9-1	400,000 GALLONS	3020-05 E	1	246.00	246.00	A	400,000 GALLON CONE ROOF PETROLEUM STORAGE TANK #10005
S-36-10-1	400,000 GALLONS	3020-05 E	1	246.00	246.00	A	400,000 GALLON CONE ROOF PETROLEUM STORAGE TANK #10006
S-36-11-1	800,000 GALLONS	3020-05 F	1	301.00	301.00	A	800,000 GALLON CONE ROOF PETROLEUM STORAGE TANK #20001
S-36-12-1	800,000 GALLONS	3020-05 F	1	301.00	301.00	A	800,000 GALLON CONE ROOF PETROLEUM STORAGE TANK #20002
S-36-13-1	800,000 GALLONS	3020-05 F	1	301.00	301.00	A	800,000 GALLON CONE ROOF PETROLEUM STORAGE TANK #20003
S-36-14-1	800,000 GALLONS	3020-05 F	1	301.00	301.00	A	800,000 GALLON CONE ROOF PETROLEUM STORAGE TANK #20004
S-36-15-1	1,280,000 GALLONS	3020-05 G	1	382.00	382.00	A	1,280,000 GALLON CONE ROOF PETROLEUM STORAGE TANK #32001
S-36-16-1	2,200,000 GALLONS	3020-05 G	1	382.00	382.00	A	2,200,000 GALLON CONE ROOF PETROLEUM STORAGE TANK #55001
S-36-17-1	3,200,000 GALLONS	3020-05 G	1	382.00	382.00	A	3,200,000 GALLON CONE ROOF PETROLEUM STORAGE TANK #80001
S-36-18-1	16,000 GALLONS	3020-05 B	1	93.00	93.00	A	16,000 GALLON CONE ROOF PETROLEUM STORAGE TANK #401 WITH VAPOR CONTROL SYSTEM CONSISTING OF COMMON HEADER, FIN/FAN COOLER, AND KNOCKOUT DRUM

Detailed Facility Report
For Facility=36 and excluding Deleted Permits
Sorted by Facility Name and Permit Number

PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-36-19-1	16,000 GALLONS	3020-05 B	1	93.00	93.00	A	16,000 GALLON CONE ROOF PETROLEUM STORAGE TANK #402 WITH VAPOR CONTROL PART OF S-36-18
S-36-20-1	16,000 GALLONS	3020-05 B	1	93.00	93.00	A	16,000 GALLON CONE ROOF PETROLEUM STORAGE TANK #403 WITH VAPOR CONTROL SYSTEM PART OF S-36-18
S-36-21-1	20,000 GALLONS	3020-05 C	1	135.00	135.00	A	20,000 GALLON CONE ROOF PETROLEUM STORAGE TANK #502 WITH VAPOR CONTROL SYSTEM PART OF S-36-18
S-36-22-1	20,000 GALLONS	3020-05 C	1	135.00	135.00	A	20,000 GALLON CONE ROOF PETROLEUM STORAGE TANK #503 WITH VAPOR CONTROL SYSTEM PART OF S-36-18
S-36-23-1	20,000 GALLONS	3020-05 C	1	135.00	135.00	A	20,000 GALLON CONE ROOF PETROLEUM STORAGE TANK #504 WITH VAPOR CONTROL SYSTEM PART OF S-36-18
S-36-24-1	20,000 GALLONS	3020-05 C	1	135.00	135.00	A	20,000 GALLON CONE ROOF PETROLEUM STORAGE TANK #505 WITH VAPOR CONTROL SYSTEM PART OF S-36-18
S-36-25-1	24,000 GALLONS	3020-05 C	1	135.00	135.00	A	24,000 GALLON CONE ROOF PETROLEUM STORAGE TANK #601 WITH VAPOR CONTROL SYSTEM PART OF S-36-18
S-36-26-1	40,000 GALLONS	3020-05 C	1	135.00	135.00	A	40,000 GALLON CONE ROOF PETROLEUM STORAGE TANK #1017
S-36-27-1	40,000 GALLONS	3020-05 C	1	135.00	135.00	A	40,000 GALLON CONE ROOF PETROLEUM STORAGE TANK #1021
S-36-28-1	40,000 GALLONS	3020-05 C	1	135.00	135.00	A	40,000 GALLON CONE ROOF PETROLEUM STORAGE TANK #1022
S-36-29-1	40,000 GALLONS	3020-05 C	1	135.00	135.00	A	40,000 GALLON CONE ROOF PETROLEUM STORAGE TANK #1023 WITH VAPOR CONTROL SYSTEM PART OF S-36-18
S-36-30-1	40,000 GALLONS	3020-05 C	1	135.00	135.00	A	40,000 GALLON CONE ROOF PETROLEUM STORAGE TANK #1301 WITH VAPOR CONTROL SYSTEM PART OF S-36-18
S-36-31-1	52,000 GALLONS	3020-05 D	1	185.00	185.00	A	52,000 GALLON CONE ROOF PETROLEUM STORAGE TANK #1302 WITH VAPOR CONTROL SYSTEM PART OF S-36-18
S-36-34-1	83,000 GALLONS	3020-05 D	1	185.00	185.00	A	83,000 GALLON CONE ROOF PETROLEUM STORAGE TANK #2002 WITH VAPOR CONTROL SYSTEM PART OF S-36-18
S-36-35-1	100,000 GALLONS	3020-05 E	1	246.00	246.00	A	100,000 GALLON CONE ROOF PETROLEUM STORAGE TANK #2501 WITH VAPOR CONTROL SYSTEM PART OF S-36-18
S-36-37-12	31,100 kBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	LUBE OIL FINISHING PLANT WITH 16.5 MMBTU/HR NATURAL GAS-FIRED NATURAL DRAFT EXTRACT HEATER LH-1, 12.6 MMBTU/HR NATURAL GAS-FIRED FORCED DRAFT HOT OIL HEATER LH-2 WITH FGR, 12.0 MMBTU/HR NATURAL GAS-FIRED FORCED DRAFT HOT OIL HEATER LH-3 WITH LOW NOX BURNERS AND FGR, ABSORBER T-1, TREATING TOWER T-2, EXTRACT DRYER T-5/T-6, MP FLASH DRUM D-5, EXPANSION DRUM D-9, BLOWDOWN DRUM D-7, AND SETTLER D-1
S-36-38-2	29,400 GALLONS	3020-05 C	1	135.00	135.00	A	29,400 GALLON FIXED ROOF SOLVENT STORAGE TANK NORTH #702

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S-36-39-1	840,000 GALLONS	3020-05 F	1	301.00	301.00	A	840,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK #20006 EQUIPPED WITH A GAUGE HATCH SET AT 2.0 PSI PRESSURE AND 0.5 PSI VACUUM
S-36-40-1	840,000 GALLONS	3020-05 F	1	301.00	301.00	A	840,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK #20005 EQUIPPED WITH A GAUGE HATCH SET AT 2.0 PSI PRESSURE AND 0.5 PSI VACUUM
S-36-41-17	31,250 kBtu/hr boiler	3020-02 H	1	1,030.00	1,030.00	A	31.25 MMBTU/HR FORCED DRAFT WICKES BOILER WITH NORTH AMERICAN MODEL 6131-FC2 NATURAL GAS/OIL-FIRED LOW NOX BURNER WITH FGR
S-36-42-9	25 MMBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	CRUDE UNIT AND/OR VISBREAKING UNIT INCLUDING GAS FIRED 12.6 MMBTU/HR HEATER (PERMITTED AS S-36-2), 25 MMBTU/HR NATURAL GAS FIRED VERTICAL ASPHALT HEATER H5 WITH 3 ZEECO CLSF 12 LOW NOX BURNERS, RETENTION VESSEL, AND FIVE HEATER EXCHANGERS
S-36-43-2	13,500,000 BTU/HR	3020-02 G	1	815.00	815.00	A	ABA PLANT WITH ASPHALT BLOWING STILL (NORTH), 200 HP BLOWER, CONDENSIBLES KNOCKOUT VESSEL, SMITH THERMAL OXIDIZER, O2 RECORDING ANALYZER, AND SHARED EQUIPMENT LISTED IN S-36-4
S-36-44-1	29,400 GALLONS	3020-05 C	1	135.00	135.00	A	29,400 GALLON FIXED ROOF SOLVENT STORAGE TANK SOUTH #701
S-36-47-1	22,428 GALLONS	3020-05 C	1	135.00	135.00	A	22,428 GALLON FIXED ROOF PETROLEUM STORAGE TANK #501 WITH VAPOR CONTROL SYSTEM PART OF S-36-18
S-36-48-1	44,226 GALLONS	3020-05 C	1	135.00	135.00	A	44,226 GALLON FIXED ROOF PETROLEUM STORAGE TANK #1006
S-36-49-1	44,142 GALLONS	3020-05 C	1	135.00	135.00	A	44,142 GALLON FIXED ROOF PETROLEUM STORAGE TANK #1020
S-36-50-1	576,702 GALLONS	3020-05 F	1	301.00	301.00	A	576,702 GALLON FIXED ROOF PETROLEUM STORAGE TANK #13001
S-36-51-18	103.4 MMBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	103.4 MMBTU/HR DIESEL TREATING UNIT WITH SULFUR RECOVERY UNIT, CAUSTIC SCRUBBER, AND SAFETY FLARE
S-36-58-1	84,000 GALLONS	3020-05 D	1	185.00	185.00	A	84,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK #2003
S-36-59-1	128,000 GALLONS	3020-05 E	1	246.00	246.00	A	128,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK #3001
S-36-60-1	126,000 GALLONS	3020-05 E	1	246.00	246.00	A	126,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK #3002
S-36-61-1	126,000 GALLONS	3020-05 E	1	246.00	246.00	A	126,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK #3003
S-36-62-1	126,000 GALLONS	3020-05 E	1	246.00	246.00	A	126,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK #3004
S-36-63-1	126,000 GALLONS	3020-05 E	1	246.00	246.00	A	126,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK #3005
S-36-64-1	126,000 GALLONS	3020-05 E	1	246.00	246.00	A	126,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK #3006
S-36-65-1	210,000 GALLONS	3020-05 E	1	246.00	246.00	A	210,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK #5001

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S-36-66-1	210,000 GALLONS	3020-05 E	1	246.00	246.00	A	210,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK #5002
S-36-67-1	210,000 GALLONS	3020-05 E	1	246.00	246.00	A	210,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK #5003
S-36-68-1	210,000 GALLONS	3020-05 E	1	246.00	246.00	A	210,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK #5004
S-36-69-1	420,000 GALLONS	3020-05 E	1	246.00	246.00	A	420,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK #10002
S-36-70-1	420,000 GALLONS	3020-05 E	1	246.00	246.00	A	420,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK #10003
S-36-71-1	840,000 GALLONS	3020-05 F	1	301.00	301.00	A	840,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK #20008
S-36-72-1	840,000 GALLONS	3020-05 F	1	301.00	301.00	A	840,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK #20009
S-36-76-2	19,000,000 BTU/HR	3020-02 H	1	1,030.00	1,030.00	A	19 MMBTU/HR TITUSVILLE BOILER
S-36-80-1	14 HP	3020-01 A	1	87.00	87.00	A	FUEL GAS SYSTEM INCLUDING TWO 2 HP CAUSTIC CIRCULATION PUMPS, 10 HP CAUSTIC TRANSFER PUMP, PACKED-BED CAUSTIC DESULFURIZATION SCRUBBER WITH BED OF GLITSCH BALLAST PACKING, AND 100 BBL CAUSTIC CIRCULATION TANK.
S-36-81-1	84,000 GALLONS	3020-05 D	1	185.00	185.00	A	84,000 GALLON FIXED ROOF NAPHTHA STORAGE TANK WITH HMT TANK SERVICE INC. INTERNAL FLOATING ROOF
S-36-82-1	15 HP	3020-01 A	1	87.00	87.00	A	NAPHTHA TRUCK LOADING OPERATION INCLUDING LOADING PUMP WITH 15 HP ELECTRIC MOTOR, 4" DIA. FLEXIBLE BOTTOM LOADING HOSE, AND EMCO WHEATON MODEL J1410 OR J1411 BUCKEYE DRY-BREAK COUPLER
S-36-99-1	12.6 MMBTU/HR	3020-02 G	1	815.00	815.00	A	12.6 MMBTU/HR OIL/GAS FIRED STANDBY BOILER
S-36-100-1	230 HP RATING	3020-01 E	1	412.00	412.00	A	LOADING RACKS #1, #2, #3, AND #5
S-36-101-4	70 hp	3020-01 C	1	197.00	197.00	A	LOADING RACK OPERATION WITH RACKS 6, 7, AND 13
S-36-102-1	100 HP	3020-01 D	1	314.00	314.00	A	ASPHALT TRUCK LOADING RACK #4 AND LOADING ARMS #10 AND #11
S-36-103-1	130 HP	3020-01 D	1	314.00	314.00	A	RAILCAR LOADOUT
S-36-104-2	37,000 BBL TANK	3020-05 G	1	382.00	382.00	A	37,000 BBL DISTILLATE OIL TANK 37001 WITH NATURAL GAS BLANKET AND VAPOR COLLECTION SYSTEM CONNECTED TO PERMIT UNIT S-36-51
S-36-105-1	187 BHP DIESEL ENGINE	3020-10 B	1	117.00	117.00	A	187 BHP CATERPILLAR (MODEL #3208, SERIAL #90N76237) EMERGENCY DIESEL FIRED IC ENGINE DRIVING A FIRE PUMP
S-36-108-2	3,715,488 gallons	3020-05 G	1	382.00	382.00	A	4,200,000 GALLON WELDED INTERNAL FLOATING ROOF HEAVY CRUDE OIL STORAGE TANK #100,001 WITH MECHANICAL SHOE PRIMARY SEAL AND SECONDARY WIPER SEAL TANK

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S-36-109-0	268.3 total electric hp	3020-01 E	1	412.00	412.00	A	HEAVY OIL HYDROFINISHER UNIT INCLUDING HEAT EXCHANGERS, TWO REACTORS, VESSELS, STRIPPER COLUMN, VACUUM DRYER COLUMN, AND TWO STEAM JET EDUCTORS

Number of Facilities Reported: 1